EXHIBIT 4

CONFIDENTIAL

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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SCF ARIZONA,	:	
Plaintiff,	:	09 Civ. 9513 (WHP)
vs.	:	
WACHOVIA BANK, N.A.,	:	
Defendant.	:	

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EXPERT REPORT OF ROBERT GLENN HUBBARD

I. Introduction

A. Qualifications

1. My name is Robert Glenn Hubbard. I am the Dean of the Graduate School of Business of Columbia University, where I hold the Russell L. Carson Professorship in Finance and Economics. In addition, I am a Professor of Economics in the Department of Economics of the Faculty of Arts and Sciences. At the National Bureau of Economic Research, I am a Research Associate in programs on corporate finance, public economics, industrial organization, monetary economics, and economic fluctuations and growth. I have taught undergraduate and graduate courses in economics for 27 years, including *Principles of Economics, Intermediate Microeconomics, Intermediate Macroeconomics, Quantitative Methods in Policy Analysis, Entrepreneurial Finance, Future of Financial Services, Public Finance, and Money and Financial Markets*. I am a director of ADP, Inc.; BlackRock Closed-End Funds; KKR Financial Corporation; and Met Life.

2. From 2001 to 2003, I served as Chairman of the President's Council of Economic Advisers. Over that time period, I also served as Chair of the Economic Policy Committee for the Organization for Economic Co-operation and Development in Paris. Prior to joining the Columbia faculty as Professor of Economics and Finance in 1988, I taught in the Department of Economics at Northwestern University. I have also served as Visiting Professor of Business Administration at Harvard Business School, John M. Olin Visiting Professor at the University of Chicago, Visiting Professor and Research Fellow of the Energy and Environmental Policy Center at the John F. Kennedy School of Government, and John M. Olin Fellow at the National Bureau of Economic Research. I hold A.M. and Ph.D. degrees in economics from Harvard University, and B.A. and B.S. degrees in economics from the University of Central Florida, *summa cum laude*.

3. As an economist, I have examined the evolution and behavior of a wide range of

firms and industries, and I have published a variety of peer-reviewed empirical studies of market structure and firm behavior. I have authored more than 100 publications, edited a number of books, and authored a leading textbook on money and financial markets and a textbook on principles of economics.

4. I have been an advisor or consultant to the Board of Governors of the Federal Reserve System, Congressional Budget Office, Federal Reserve Bank of New York, Internal Revenue Service, International Trade Commission, National Science Foundation, U.S. Department of Energy, and U.S. Department of the Treasury. From 1991 to 1993, I served as Deputy Assistant Secretary (Tax Analysis) of the U.S. Department of the Treasury, where I was responsible for economic analysis of tax policy, the administration's revenue estimates, and health care policy issues. My *curriculum vitae*, which is attached as Appendix A, provides more biographical details and lists my writings. Appendix B lists my testimony in the past four years.

5. I am being compensated at an hourly rate of $1,200 for time spent on this matter. Employees of Analysis Group, Inc., an economic research and consulting firm, working under my direction and supervision, have assisted me in this assignment. In addition, I receive compensation based on the professional fees of Analysis Group. None of my compensation is contingent upon my findings or on the outcome of this litigation.

B. Assignment

6. I have been retained by Reed Smith LLP, Counsel for Defendant, Wachovia Bank, N.A. ("Defendant" or "Wachovia,") in conjunction with the case caption referenced above.

7. In its complaint, SCF Arizona ("Plaintiff" or "SCF") alleges that Defendant inappropriately held cash collateral through the Bank's securities lending program in "risky" Lehman Brothers Holdings Inc. ("Lehman") securities. Plaintiff further alleges that Defendant knew or should have known of changes in market dynamics and that "the market viewed the creditworthiness of Lehman bonds with

a high degree of suspicion."[1]

8. I have been asked by Counsel for Defendant to assess whether the bankruptcy filing of Lehman on September 15, 2008 was reasonably foreseeable. I hold all of my opinions as provided in this Report, and as may be expressed at trial, to a reasonable degree of professional certainty.

C. Data and Information Considered

9. In preparing this Report, I relied upon my education and experience in the areas of finance, economics, and investments; publicly available information, such as equity analyst research reports, Securities and Exchange Commission ("SEC") filings, credit agency reports, and data from Bloomberg, Capital IQ, and the Center for Research in Security Prices ("CRSP"); and other materials. Appendix C lists documents that I have reviewed in connection with this matter.

D. Summary of Conclusions

10. Based upon the analyses I have performed and my review of pertinent materials, I conclude that Lehman's bankruptcy was not reasonably foreseeable for the following reasons:

- Lehman's bond prices generally traded above 90 cents on the dollar, and most of the time above 95 cents on the dollar, until the week preceding its Chapter 11 filing on September 15, 2008. Lehman's bond prices and changes in bond prices were inconsistent with investors' expectations of other firms near bankruptcy.
- Lehman's stock price performance was consistent with that of its peers; it did not decline precipitously until the last seven days preceding the firm's Chapter 11 filing. Lehman's stock price performance was not consistent with a pending bankruptcy filing.

[1] First Amended Complaint, February 11, 2010, pp. 14, 16 and 17.

- Until one week before bankruptcy, one-year and five-year credit default swap spreads for Lehman followed a pattern similar to the one-year and five-year credit default swap spreads of relevant comparable firms that did not file for bankruptcy. Furthermore, Lehman's one-year and five-year credit default swap spread pattern was different from the pattern exhibited by firms that did file for bankruptcy.
- Credit rating agencies gave investment grade credit ratings to Lehman throughout 2007 and until the day Lehman filed for bankruptcy, indicating a very low expected probability of default. Firms with the ratings assigned to Lehman experienced historical two-year default rates of 0.2 percent or lower likelihood.
- Equity analysts overwhelmingly recommended either buying or holding Lehman's stock over the entire period from June 1, 2007 through September 12, 2008.
- Following the government-assisted acquisition of Bear Stearns in March 2008, many market participants believed the Federal Reserve would also provide financial support to Lehman, if it failed.
- Despite the economic environment and the increased risk of securities issued by financial institutions, many sophisticated investors with conservative investment mandates continued to hold Lehman securities through 2008 and up to its bankruptcy.
- The collapse of Lehman on September 15, 2008 is consistent with a classic run on the bank, which is not reasonably foreseeable.

11. My opinions, and the bases for my opinions, are given in this Report and the attached exhibits. I am prepared to testify at trial on the topics referenced in this Report. I am also prepared to provide any additional relevant background. I reserve the right to make any necessary corrections and additions to my Report, and to modify my opinions should any new or additional evidence become available.

12. My Report is organized as follows. Section II describes my research approach

and methodology. Section III provides a brief background on Lehman. Section IV analyzes the market consensus regarding Lehman securities. Section V evaluates Lehman's viability expectations of sophisticated market participants, that is, credit rating agencies and equity analysts. Finally, Section VI examines other sophisticated market participants that held Lehman securities at the time of its bankruptcy.

II. Research Approach and Methodology

13. I examine the foreseeability of Lehman's bankruptcy by analyzing information typically used by market participants and economists to evaluate financial risk. Importantly, my analysis is based on the interpretation of information available to market participants at the time. The use of hindsight to assess the foreseeability of Lehman's bankruptcy filing introduces biases into the analysis that would increase the likelihood of an incorrect conclusion. For example, an article in *The Wall Street Journal* on September 16, 2008 (the day after Lehman's bankruptcy filing) stated: "Before Sunday, not even most people on Wall Street really believed that Lehman would go bust. … But by Monday morning, everyone's beliefs had already been retroactively revised; suddenly, Lehman's bankruptcy had been 'inevitable.' Psychologists call this hindsight bias – the uncanny feeling that 'I knew it all along.'"[2]

14. In my analysis, I rely primarily on market prices and market indicators, as this information incorporates the general sentiment of the market. Furthermore, prices are the acid test of market sentiment because they reflect the economic equilibrium of buyers and sellers rather than mere opinions. The market indicators I use include Lehman bond prices, Lehman stock prices, and the spreads on Lehman's credit default swaps. These market-based metrics, as a whole, provide a strong indication of the collective judgment of the many buyers and sellers that

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2 Zweig, J., "The Intelligent Investor: How to Handle a Market Gone Mad," *The Wall Street Journal*, September 16, 2008.

constitute the market. Because of the financial incentives involved, market participants have strong motives to be as accurate as possible. As I will show, these market indicators support my conclusion that Lehman's bankruptcy was not reasonably foreseeable.

15. I supplement this analysis of market indicators and financial metrics with qualitative information provided by market participants such as equity analysts, credit ratings agencies and analysts, and other market commentators. The ratings and the commentary from the credit rating agencies are the result of in-depth analyses of publicly available and non-public information. Credit ratings were at all relevant times - and still are - widely used by investors, regulators and other market participants to assess the risk of default. Equity analysts gather and analyze information about companies and their financial prospects.

16. Throughout the report, I compare Lehman's performance to two sets of comparable groups: (1) other large companies that filed for bankruptcy between January 1, 2007 and December 31, 2009, where I define large as companies with more than $1 billion in assets.[3,4] I further divide this group into two subcategories, "banking and financial companies" and "companies in other industries;"[5] and (2) peer financial companies that did not file for bankruptcy. That is, all other standalone U.S. investment banks and financial institutions that received Troubled Asset Relief Program ("TARP") funding.[6]

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3 Companies with more than $1 billion in assets that filed for bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData.com.

4 A cut-off of $1 billion was chosen to focus on large firms that would be more comparable to Lehman, which had $600 billion in assets at the time of its bankruptcy according to Lehman's Form 8-K, filed September 10, 2008. As a robustness check, I estimated results with different cut-off points. For example, I examined companies with at least $10 billion, $50 billion, or $100 billion in assets. None of these alternative analysis yielded meaningfully different results.

5 Although Lehman is more similar to banking and financial companies than to companies in other business sectors, I still compare Lehman to this second group as a robustness check to my analysis.

6 Financial institutions consist of financial entities that received more than $20 billion of TARP funds. Wachovia Corp. did not receive any TARP funds; Wells Fargo & Co. announced its purchase of Wachovia on October 3, 2008.

17. In this report, I analyze the sentiment of the collective market, focusing on market participants' beliefs and expectations, as exemplified by their actions and prices. The sentiments of a few select individual investors are not representative of the belief of the majority of investors at the time. I am aware, for example, that certain investors, such as hedge fund manager David Einhorn, raised concerns about Lehman's viability during late 2007 and early 2008, but these concerns were by no means shared by most market participants.[7] Even as these investors questioned Lehman's viability, other investors – through their statements *and* actions – indicated that Lehman was a viable investment. While one can agree today that Mr. Einhorn concerns about Lehman's viability were not unfounded, it is only with the benefit of hindsight that one can make this assessment.

III. Background

18. Lehman was a global financial services company that provided services in equity and fixed income sales, trading and research, investment banking, asset management, private investment management, and private equity.[8] Lehman was founded in 1850 and was headquartered in New York with regional headquarters in London and Tokyo.[9] As of May 31, 2008, Lehman had $639 billion in assets and market capitalization of $20 billion.[10,11]

19. Lehman filed for bankruptcy on the morning of Monday, September 15, 2008. At the time of its bankruptcy, Lehman was the fourth largest investment bank in the United States and employed over 25,000 people worldwide.[12] Lehman's

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7 See, for example, Giannone, J., "Greenlight Sees More Lehman Write-downs," Reuters, December 10, 2007; "Top Value Investors to Address 2008 Value Investing Congress West in Los Angeles This May," Business Wire, March 23, 2008; and Wilchins, D., "Lehman Should Raise More Capital: Einhorn," Reuters, May 22, 2008.

8 Lehman Brothers Holdings Inc., Form 10-K for the fiscal year ended November 30, 2007, p. 3.

9 Lehman Brothers Holdings Inc., Form 10-K for the fiscal year ended November 30, 2007, p. 3.

10 Lehman Brothers Holdings Inc., Form 10-Q for the quarter ended May 31, 2008, p. 5.

11 Lehman's market capitalization peaked on February 2, 2007 at $44.4 billion. Bloomberg L.P.

12 "Lehman Bros Files for Bankruptcy," BBC News, September 16, 2008.

bankruptcy was—and still is—the largest bankruptcy in U.S. history.[13] According to BankruptcyData.com, Lehman's assets at time of bankruptcy were roughly $690 billion, more than six times the assets of WorldCom, the second largest bankruptcy at the time Lehman collapsed, and approximately two times the assets of Washington Mutual, which filed for bankruptcy shortly after Lehman.[14]

20. On September 15, 2008, general market indices suffered large negative movements in response to Lehman's bankruptcy filing. The S&P 500 lost almost 4.7 percent, dropping to levels not seen since 2005. Similarly, the Dow Jones Industrial Average ("Dow") and the NASDAQ Composite ("NASDAQ") fell 4.4 and 3.6 percent, respectively.[15]

IV. The Market Prices of Lehman's Debt, Equity, and Credit Default Swaps Did Not Indicate that Bankruptcy Was Reasonably Foreseeable

21. In this section, I examine the prices of Lehman securities (its bonds and equity). In an efficient market, rational investors incorporate available information into the prices at which they transact. More specifically, debt prices incorporate market participants' beliefs about the issuer's ability to repay its obligation. Furthermore, in an efficient market, the price of a stock incorporates all available public information. Thus, if bankruptcy were reasonably foreseeable, this information

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[13] "Lehman Brothers filed the largest bankruptcy case in history on Monday, Sept. 15, as the storied investment bank fell prey to the credit crisis." ("Top 10 Bankruptcies," Time, available at http://www.time.com/time/specials/packages/article/0,28804,1841334_1841431,00 html, viewed on November 22, 2010.) See also "20 Largest Public Company Bankruptcy Filings 1980 – Present," BankruptcyData.com, available at http://www.bankruptcydata.com/Research/Largest_Overall_All-Time.pdf, viewed on November 22, 2010.

[14] WorldCom had $104 billion in assets prior to filing for bankruptcy on July 21, 2002. Washington Mutual, Inc had $328 billion in assets prior to filing for bankruptcy on September 26, 2008. ("Top 10 Bankruptcies," Time, available at http://www.time.com/time/specials/packages/article/0,28804,1841334_1841431,00 html, viewed on November 22, 2010.) See also "20 Largest Public Company Bankruptcy Filings 1980 – Present," BankruptcyData.com, available at http://www.bankruptcydata.com/Research/Largest_Overall_All-Time.pdf, viewed on November 22, 2010.

[15] Bloomberg L.P.

would be reflected in the security prices of Lehman's debt and equity.

22. Other instruments, such as credit default swaps, also incorporate any market sentiment regarding the likelihood of default. Additionally, analysis of the securities prices of firms whose prospects are correlated with Lehman provides insight into the likelihood of default.

A. Lehman's Bond Prices Did Not Indicate a Bankruptcy Filing Was Reasonably Foreseeable

23. The bond price represents the present value of expected future cash payments of its coupons and principal, discounted at an appropriate risk-adjusted rate of return.[16] All else being equal, if the probability of a company's bankruptcy increases, the prices of its bonds decline. Usually, after a company defaults on its debt or files for bankruptcy, its bonds trade, on average, for 30 to 40 cents on the dollar, depending on the seniority of the bond.[17] If bankruptcy is foreseeable or expected by investors, the prices of a company's bonds should trade in this range, as investors will have incorporated the expectation of bankruptcy into the bond price.

24. To analyze the market's assessment of Lehman's ability to repay its debt, I examine the prices of Lehman's outstanding publicly-traded bonds in the year preceding its Chapter 11 filing. Exhibit 1 enumerates the 25 largest outstanding issuances of Lehman's debt when Lehman filed for Chapter 11 bankruptcy protection on September 15, 2008. These bonds represented approximately 30 percent of Lehman's total outstanding long-term debt. In addition to these 25 bonds, I also conduct my analysis on the Lehman note held in Wachovia's

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16 Brealey, R., Myers, S. and Allen, F., *Principles of Corporate Finance*, Tenth Edition, 2010, p. 46-47.

17 "Corporate Default and Recovery Rates, 1920-2008," Moody's Investors Service, February 2009, p. 7. Seniority refers to the order in which debt is paid in bankruptcy; holders of more senior debt are generally repaid out of available assets before the holders of less senior debt receive any payment. Thus, all else equal, purchasers are generally willing to pay more for a bond with higher seniority. In particular, I note that, according to Moody's, senior unsecured claims have a post-default price of 36.4 cents per dollar for bankruptcies filed between 1982 through 2008.

securities lending portfolio, which is at issue in this case.[18] Historical prices for this note are not available from commonly used market data sources (*e.g.*, Bloomberg and Capital IQ). Therefore, I use market prices available in TRACE for notes comparable to the note at-issue to build a price series for this note. Exhibit 2 lists the note at-issue and the comparable Lehman notes used in my analysis.

25. Because bond prices may differ due to their priority in bankruptcy, I examine the bond prices by their seniority. All else equal, more senior claims tend to trade at higher prices because they are less likely to default. Exhibit 3 shows weighted-average aggregate prices for Lehman's largest bonds from Exhibit 1, with available pricing data, segregated by their seniority—senior unsecured claims or subordinated claims. As demonstrated in the exhibit, even the subordinated Lehman bonds traded above 85 cents on the dollar one week prior to the bankruptcy filing.[19] In fact, for the majority of the time prior to the week before bankruptcy, the senior unsecured bonds traded above 90 cents on the dollar, and, on average, traded around 80 cents on the dollar for the two trading days prior to Lehman's bankruptcy filing. These high prices for the Lehman securities (compared to the average of 30 to 40 cents for companies that file for bankruptcy) indicate that bond investors did not expect the bankruptcy filing on September 15, 2008.

26. I repeat the analysis for the at-issue note held in Wachovia's securities lending portfolio. In aggregate, prices for this note traded above 95 cents for almost the

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18 The at-issue Lehman note held in Wachovia's securities lending portfolio on behalf of SCF is a floating rate note with a notional amount of $25 million and a maturity date of March 23, 2009. For details of the at-issue Lehman note, see Exhibit 2.

19 In this analysis, I use prices from Trade Reporting and Compliance Engine ("TRACE") which reflect actual transaction prices for the bonds. TRACE is the vehicle developed by the Financial Industry Regulatory Authority, Inc. ("FINRA") that "facilitates the mandatory reporting of over the counter secondary market transactions in eligible fixed income securities. All broker/dealers who are FINRA member firms have an obligation to report transactions in corporate bonds to TRACE under an SEC approved set of rules." See, http://www finra.org/Industry/Compliance/MarketTransparency/TRACE/, viewed on January 19, 2011.

entire time period leading up to the bankruptcy filing. In fact, my price estimate for the note at issue on September 11, 2008, the second to last trading day before the bankruptcy filing, was around 94 cents. The fact that Lehman's bonds traded at prices substantially higher than 30 to 40 cents, during the preceding year *and* immediately prior to the bankruptcy filing, indicates that investors did not anticipate the bankruptcy filing.

27. Closer examination of the decline in Lehman bond prices during 2008 suggests the price decline was due, at least in part, to factors affecting the entire financial industry, rather than idiosyncratic issues only affecting Lehman. In Exhibit 4, I compare Lehman's bond prices to the bond prices of comparable financial institutions in the year prior to Lehman's bankruptcy filing. Lehman's bond prices fell, on average, around seven percent between one year preceding its bankruptcy filing and 10 days prior to the filing. Likewise, bond prices for comparable financial companies fell, on average, around five percent over the same time frame. Furthermore, the Lehman at-issue note fell less than two percent between one year preceding its bankruptcy filing and five days prior to the filing. Similarly, bond prices for comparable financial companies fell, on average, approximately five percent over the same time frame. Market and industry-wide factors were driving bond prices down during this time frame, so an imminent collapse of Lehman and not of its competitors seemed rather unlikely.

28. I also examine the rate at which Lehman's bond prices declined and find the decline in Lehman's bond prices was atypical of firms that are about to file for bankruptcy. To conduct this analysis, I benchmark Lehman's bond prices against the bond prices of firms that filed for bankruptcy. I create two comparison groups. The first group consists of banking and financial companies who filed for bankruptcy between January 1, 2007 and December 31, 2009, and had more than $1 billion in assets. Exhibit 5 shows the bond prices of these comparable institutions in the year preceding their bankruptcy filings. As shown in the exhibit, Lehman's largest bond issues declined, on average, close to 7 percent between one year preceding its bankruptcy filing and 10 days prior to its

bankruptcy filing. On the other hand, bond values for banking and financial companies that filed for bankruptcy decreased, on average, close to 35 percent during the same measurement period.[20] The Lehman note at-issue in this matter also did not follow the same pattern as financial firms on the verge of bankruptcy, the at-issue Lehman security decreased less than one percent during the same measurement period. Furthermore, the at-issue note decreased less than four percent between one year prior to bankruptcy and the second to last trading day before the bankruptcy filing.

29. The second comparison group includes companies in other industries that filed for bankruptcy between January 1, 2007 and December 31, 2009 and had more than $1 billion in assets. Exhibit 6 shows that the evolution of Lehman's bond prices over the year prior to bankruptcy filing was not consistent with the pattern exhibited by the bond prices of companies in other industries in the year preceding their bankruptcy filings. For example, as mentioned before, Lehman's largest bond issues declined, on average, close to 7 percent during the time period beginning one year preceding its bankruptcy filing and ending 10 days prior to its bankruptcy filing. Similarly, bond values for companies in other industries that filed for bankruptcy decreased, on average, more than 75 percent during the same measurement period relative to their bankruptcies.

30. Additionally, Lehman was able to raise almost $28 billion in debt during the July 1, 2007 to September 15, 2008 time period. As shown in Exhibit 7, Lehman was able to issue over $2.6 billion in the last calendar quarter of 2007, almost $6.0 billion in the first calendar quarter of 2008, and close to $5.0 billion in the second quarter of 2008. The majority of the debt issuances were senior unsecured. All else equal, this type of debt carries more risk than secured debt, which has a

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[20] Mean and median values in Exhibit 5 are overstated because of CIT Group's bankruptcy agreement. "Under the bankruptcy plan approved by bondholders, creditors will end up owning the company. Most bondholders will also end up with new CIT debt worth about 70 percent of the face value of their old debt." (Wilchins, D. and Comlay, E., "CIT Group Files for Prepackaged Bankruptcy," Reuters, November 1, 2009.)

dedicated set of assets pledged to pay the obligation in the event of insolvency.[21] The ability of Lehman to issue debt in 2007 and through the summer of 2008 supports the conclusion that Lehman's demise was not foreseeable.

31. The analysis of Lehman's bond prices, considered both in absolute terms and relative to those of other bankrupt firms and competitors, as well as the prices at which Lehman's bonds were trading in early September, supports my conclusion that the market did not anticipate Lehman's bankruptcy filing, and therefore that the bankruptcy was not reasonably foreseeable.

B. Analysis of Lehman's Stock Price and Market Capitalization Did Not Indicate Bankruptcy Was Reasonably Foreseeable

32. In liquid, well-functioning markets, the market price of a publicly traded stock incorporates all public information about a company's future prospects and risks, reflecting both industry-wide and company-specific factors.[22] This incorporation of available information is the hallmark of an efficient market.[23] Stock prices change quickly in response to new information. Therefore, I examined the stock price of Lehman and its peers to evaluate the market's assessment of Lehman's prospects.

33. To quantify the extent of the "surprise" at Lehman's bankruptcy, I compare changes in Lehman's market capitalization, at a number of points in the period leading up to its bankruptcy, to the changes in the market capitalization of other U.S. firms that filed for bankruptcy between January 1, 2007 and December 31,

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21 Downes, J. and Goodman, J.E., *Dictionary of Finance and Investment Terms*, Seventh Edition, Barron's Financial Guides, p. 621.

22 Lehman's stock traded on the New York Stock Exchange, the "largest equities marketplace in the world." (Downes, J. and Goodman, J.E., *Dictionary of Finance and Investment Terms*, Seventh Edition, Barron's Financial Guides, p. 459.) An analysis of stock prices provides useful information whether one is evaluating a company's debt or equity.

23 Fama, E.F., "Efficient Capital Markets: A Review of Theory and Empirical Work," *Journal of Finance* 25:2, 1970, p. 383.

2009.[24] I measure erosion in market capitalization relative to market capitalization 365 days prior to bankruptcy. In Exhibit 8, I compare the decline in Lehman's market capitalization to that of banking and financial companies with assets of at least $1 billion that filed for bankruptcy during the relevant period; in Exhibit 9, I compare Lehman's erosion to that of companies in other industries with assets of at least $1 billion that filed for bankruptcy during the same period. These exhibits show that Lehman's market capitalization declined at a slower rate over most of the one-year period prior to its bankruptcy than that of most of the firms that filed for bankruptcy. Exhibit 10 plots the change in Lehman's market capitalization relative to the mean and median changes in market capitalization of all firms in Exhibits 8 and 9.

34. Even only ten days before its bankruptcy filing, Lehman's market capitalization was still 36.3 percent of its value one year before the filing. This valuation is in contrast to the other firms in Exhibit 8, which, at ten days prior to bankruptcy, retained only 7.9 percent on average (3.8 percent median) of their market capitalization one year before their respective bankruptcies. The other firms in Exhibit 9 retained only 9.2 percent on average (3.8 percent median) of their market capitalization one year before bankruptcy. As shown in Exhibit 10, at almost every point in the year prior to bankruptcy, Lehman's market capitalization as a percentage of its market capitalization one year prior to bankruptcy remained well above the median capitalization of other firms that filed for bankruptcy during the relevant period. The decline in market capitalization early in the one-year period for the other firms is in sharp contrast to the precipitous decline in Lehman's market capitalization in the last ten days before it filed for bankruptcy.

35. Furthermore, much of the decline in Lehman's market capitalization one year

[24] During the 365-day period, several of the firms in the sample, including Lehman, issued stock. This change in the number of Lehman's shares and its effect on market capitalization do not change my conclusion. U.S. firms were analyzed because Lehman was a U.S. institution, its securities were traded in U.S. markets, and because they would be subject to the same bankruptcy laws.

before filing for bankruptcy was due to factors affecting the entire financial industry, rather than idiosyncratic issues only affecting Lehman. In Exhibit 11, I compare changes in Lehman's market capitalization to changes in the market capitalizations of comparable financial institutions in the year prior to Lehman's bankruptcy filing. The change in Lehman's market capitalization 180 days before filing for bankruptcy was similar to the average change experienced by comparable financial institutions during this time frame. Furthermore, the average market capitalization of comparable financial institutions continued to decline for the remainder of the period, albeit at a different rate than Lehman's decline. Clearly, market and industry wide factors affected equity prices down during this time frame.

36. Exhibit 12 lists the amounts of capital Lehman was able to raise after July 1, 2007. In particular, in June 2008, Lehman struck a deal to raise $6 billion in capital from an array of blue-chip investors. As part of the deal, Lehman sold $4 billion of common stock priced at $28 a share and $2 billion of preferred stock that would convert into common stock in three years.[25] Buyers included the state pension fund of New Jersey and C.V. Starr & Co., the investment fund led by Maurice Greenberg, the former head of the American International Group. Investors in the deal said they were reassured by Lehman's actions.[26] BlackRock also invested in Lehman's equity offering, and stated that, "Lehman is not a Bear Stearns situation. Lehman Brothers is adequately structured in terms of avoiding a liquidity crisis."[27]

37. The ability of Lehman to access the public markets was not consistent with the market anticipating a bankruptcy in the near future, especially because Lehman

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25 Rappaport, L. and Mollenkamp, C., "Lehman Bonds Find Stability - Executives' Ouster Send Share Price To a Six-Year Low," *The Wall Street Journal*, June 13, 2008; and Anderson, J. and Story, L., "Lehman Posts Loss and Plans to Raise Capital," *The New York Times*, June 10, 2008.

26 Fineman, J. and Onaran, Y., "Lehman CEO Fuld Finds What a Difference a Week Makes (Update1)," Bloomberg, June 14, 2008; and Kuykendall, L., "Greenberg: Lehman 'A Great Franchise,' Now Has Enough Capital," MarketWatch, June 10, 2008.

27 "BlackRock's Fink Says Lehman Not Another Bear," CNBC, June 11, 2008.

was able to raise significant amounts of capital by issuing common stock. Common stockholders have the lowest priority claim in bankruptcy, generally receiving nothing until more senior claims are settled.[28] In the event of bankruptcy, the common stockholders of relatively highly leveraged financial firms are more likely to receive nothing.

38. Based on my analysis of these data, I conclude that Lehman's stock price performance behaved similarly to that of its peers and that the erosion in its market capitalization was not consistent with the typical pattern exhibited by other firms that filed for bankruptcy. In conjunction with the fact that Lehman was able to sell approximately $6 billion in common and preferred stock three months prior to its bankruptcy filing, these events supports my conclusion that the market did not anticipate the bankruptcy filing, and therefore that the bankruptcy was not reasonably foreseeable.

C. Lehman's Credit Default Swap Spreads Did Not Indicate Bankruptcy Was Reasonably Foreseeable

39. Credit default swaps are, in effect, insurance contracts that compensate the insured party ("protection buyer") for any reduction in the value of a bond or other debt instrument that occurs when a specified issuer defaults or experiences some other defined "credit event" like a bankruptcy filing. In exchange for receiving this insurance coverage, the protection buyer makes regular payments to the insurance provider ("protection seller") over the life of the credit default swap, which can range from one to ten years. These regular payments are known as the credit default swap premium, or spread, which represent the percentage of notional amount of a bond for which the protection buyer seeks insurance

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28 Downes, J. and Goodman, J.E., *Dictionary of Finance and Investment Terms*, Seventh Edition, Barron's Financial Guides, p. 128. See also, Fabozzi, F.J., *The Handbook of Fixed Income Securities*, Sixth Edition, 2001, p. 16.

coverage.[29]

40. In order to examine the foreseeability of Lehman's demise, I compare Lehman's one-year and five-year credit default swaps to those of companies that filed for bankruptcy between January 1, 2007 and December 31, 2009. If Lehman's bankruptcy was foreseeable one would expect to observe both a pattern and a level similar to those companies that also filed for bankruptcy. Exhibits 13 and 14 graph the credit default swap spreads of Lehman against the credit default swap spreads of other firms that filed for bankruptcy. Prior to bankruptcy, the credit default swap spreads of these companies reached values substantially above 1,000 basis points, a pattern not exhibited by Lehman. For example, one-year credit default swap spreads, for all firms that filed for bankruptcy but one, rose above 3,000 basis points before these firms filed for bankruptcy, with most firms reaching levels beyond 5,000 basis points. Similarly, five-year credit default swap spreads, for all firms that filed for bankruptcy but one, rose above 1,000 basis points before these firms filed for bankruptcy. The spreads surpassed 3,000 basis points for most firms. Lehman's one-year and five-year credit default swap spreads never reached these levels. Both the movement and level of Lehman's credit default swap spreads did not appear to indicate that bankruptcy was forthcoming. Comparing Lehman's credit default swap spreads with the spreads of other firms that filed for bankruptcy supports my conclusion that Lehman's bankruptcy filing was not reasonably foreseeable.

41. Similarly, the absolute level of Lehman's credit default swap spreads does not imply a bankruptcy filing. For example, as shown in Exhibits 15 and 16, Bear Stearns' credit default swap spreads in March 2008 were similar to Lehman's credit default swap spreads in September 2008. Yet, Bear Stearns did not go bankrupt; instead Bear Stearns was purchased by JPMorgan Chase and its debt

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29 Credit default swap spreads are quoted in basis points (hundredths of a percent). A credit default swap spread of 100 basis points, for example, requires an annual payment of $50,000 for protecting a debt issue with a face value of $5 million.

obligations were assumed by JPMorgan Chase.[30]

42. Furthermore, I also note that movements in Lehman's credit default swap spreads are highly correlated with those of other investment banks. Exhibits 15 and 16 show that while Lehman's credit default swap spreads were generally higher than those of its peers, the credit default swap spreads of investment banks increased in March 2008, at the time of the purchase of Bear Stearns by JPMorgan Chase.

43. Following the purchase of Bear Stearns by JPMorgan Chase, relevant spreads (including Lehman's) declined to pre-March 2008 levels within approximately one month, and Lehman's credit default swap spread did not reach its peak March 2008 level again until immediately prior to its bankruptcy filing in September 2008 for the five-year credit default swap, and until mid-July 2008 for the one-year credit default swap.

44. Several other financial institutions had credit default swap spreads greater than Lehman's and did not file for bankruptcy. For example, as shown in Exhibits 17 and 18, Wachovia and AIG continued to pay their debt obligations despite having one and five-year credit default swap spreads greater than Lehman's one and five-year credit default swap spreads when Lehman filed for bankruptcy.

45. On September 9, 2008, Lehman's five-year credit default swap spread was 322.5 basis points.[31] This level was surpassed by other financial institutions shortly thereafter, but these other financial institutions did not default on their debt obligations. The five-year credit default swap spread of Merrill Lynch passed this level in September 2008, and yet, Merrill Lynch did not declare bankruptcy.[32] Instead, Merrill Lynch was purchased by Bank of America. In this transaction, Bank of America assumed the debt obligations of Merrill Lynch and has

[30] "Amended and Restated Guaranty Agreement," March 16, 2008, attached as Exhibit 99.1 to JPMorgan Chase & Co. Form 8-K, March 24, 2008. Certain Bear Stearns assets were not purchased by JPMorgan Chase. See, for example, http://www ny.frb.org/markets/maidenlane.html#, viewed on January 20, 2011.

[31] Bloomberg L.P.

[32] Bloomberg L.P.

continued to pay.[33] Additionally, the five-year credit default swap spread of Wachovia passed the same level for one week in July and again in September of 2008, but Wachovia did not declare bankruptcy.[34] Wells Fargo announced the purchase of Wachovia in October 2008 and assumed Wachovia's debt obligations.[35]

46. Further examination of credit default swap spreads corroborates the notion that Lehman's credit default swap level did not indicate that investors anticipated bankruptcy. Exhibit 16 indicates that the U.S. standalone investment banks in my sample (Goldman Sachs, Morgan Stanley, and Merrill Lynch), at some point after Lehman's bankruptcy, had credit default swap spreads greater than the September 9, 2008 spread level of Lehman, and yet, none of these institutions filed for bankruptcy. In fact, the credit default swap spread of Morgan Stanley grew to be more than twice the highest level that Lehman's credit default swap spread ever reached, and yet, Morgan Stanley did not file for bankruptcy.[36] The analysis of Lehman's credit default swaps and the comparison to those of Lehman's peers support my conclusion that Lehman's bankruptcy was not reasonably foreseeable.

47. Additionally, I compare Lehman's five-year credit default swap spreads to an index of credit default swap spreads of 125 North American investment grade firms published by Markit (the "CDX NA IG Index") over the period from July 1, 2007 to September 12, 2008.[37] As shown in Exhibit 19, from November 2007 through May 2008 (excluding March, when the credit default swap spreads of Lehman and its investment bank peers increased at the time of the Bear Stearns'

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33 "Bank of America Buys Merrill Lynch," *The Washington Times*, September 15, 2008; Bank of America Corporation Form 10-Q for the period ended March 31, 2009, p. 6; and "Agreement and Plan of Merger," September 15, 2008, attached as Exhibit 2.1 to Bank of America Corporation Form 8-K, September 18, 2008.

34 Bloomberg L.P.

35 "Wells Fargo to Buy Wachovia in $15.1 Billion Deal," *The New York Times*, October 3, 2008; and Wells Fargo & Company Form 10-Q for the period ended March 31, 2009, p. 2.

36 Bloomberg L.P.

37 Based on data limitations, it was not possible to compare the CDS spreads for Lehman with CDS spreads for other bankrupt firms.

collapse), Lehman's five-year credit default swap spread was slightly lower (ranging from 5 to 72 basis points) than the sub-index of financial entities and exhibited a similar pattern through August 2008.[38]

48. Finally, in Exhibit 20, I compare Lehman's five-year credit default swap spread to the CDX NA IG Index and the credit default swap spreads of the top quartile companies comprising the CDX NA IG Index.[39] From July 1, 2007 through September 9, 2008, Lehman's spread was frequently below (and often well below) the spread of the top quartile.

49. Based on my analysis of credit default swap spreads of Lehman, companies that filed for bankruptcy, other investment banks, and the investment grade firms comprising the CDX NA IG Index, I conclude that Lehman's credit default swap spreads behaved similarly to those of other firms that did not file for bankruptcy. This analysis supports my conclusion that the market did not reasonably foresee Lehman's bankruptcy.

V. Sophisticated Market Participants and Analysts Did Not Reasonably Foresee Lehman's Bankruptcy

50. My analysis of market prices supports my conclusion that Lehman's bankruptcy filing was not reasonably foreseeable. In addition to market prices, market commentary and contemporaneous analysis by analysts (both credit and equity) provide additional support to my conclusion. If bankruptcy was reasonably foreseeable, the actions and decisions of sophisticated market participants and analysts would have reflected this foreseeability. Instead, I observe little evidence that these sophisticated market participants foresaw Lehman's bankruptcy filing.

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[38] The financial sub-index is made up of the entities in the CDX NA IG Index that the publishers identified to be in the financial industry. For the relevant time period, this sub-index includes 24 to 25 entities.

[39] To calculate the top quartile credit default swap spreads, I had to replicate the index. The average difference between the reported index and the replicated index is 22 basis points.

A. Credit Ratings and Credit Agencies' Commentary Did Not Indicate Lehman's Bankruptcy Filing Was Reasonably Foreseeable

51. Lehman's creditworthiness (like the creditworthiness of other major corporations and financial institutions) was continuously monitored by all three major credit rating agencies ("major CRAs") – Standard & Poor's ("S&P"), Moody's, and Fitch.[40] Generally, credit rating agencies examine *issuer* and *issue* creditworthiness. The *issuer* rating reflects the issuer's ability to meet its senior, unsecured financial obligations; the *issue* rating reflects the risk that an individual security or class of securities may not be fully repaid.[41]

52. Major CRAs evaluate the likelihood that companies, governments, and other issuers of debt will default on their obligations. The ratings are based on the major CRAs' review of detailed public and non-public financial information about the company in question, supplemented by conversations with management. Major CRAs consider a broad range of factors, both qualitative and quantitative, in evaluating a company's prospects and the risk of default. The weights assigned to the quantitative and qualitative factors and the analytical models used to process this information are not disclosed by major CRAs.

53. Major CRAs rate virtually all large issuers of fixed income securities. For example, S&P rates approximately $32 trillion of outstanding debt issued in 100 countries.[42] Moody's tracks over 12,000 corporate issuers, 25,000 public finance issuers, and 106,000 structured finance obligations in over 110 countries.[43] Fitch

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[40] In 2007 the combined market share of Standard & Poor's, Moody's and Fitch was 95 percent. "Measuring the measurers: Credit rating could do with more competition, and a bit more rigour," *The Economist*, May 31, 2007.

[41] "Standard & Poor's Ratings Definitions," Standard & Poor's, June 3, 2009, p. 7; "Rating Symbols & Definitions," Moody's Investors Service, November 2009, pp. 5 and 8; and "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010, pp. 9 and 12.

[42] "Standard & Poor's | Key Statistics," Standard & Poor's, available at http://www.standardandpoors.com/about-sp/key-statistics/en/us, viewed on January 13, 2011.

[43] "Moody's Corporation," Moody's Investors Service, available at http://v3.moodys.com/Pages/atc.aspx, viewed on January 13, 2011.

rates issuers in over 150 countries.[44]

54. If Lehman's bankruptcy was reasonably foreseeable, I would expect to observe indications of this in its credit ratings. Instead, I observe investment grade ratings for Lehman. Major CRAs assigned ratings to Lehman that are historically associated with low probabilities of default. As shown in Exhibit 21, major CRAs rated Lehman's long-term unsecured debt as investment grade until its bankruptcy. S&P maintained a credit rating of A+ through June 2008; Lehman had a Moody's rating of A1 through July 2008. S&P downgraded Lehman to A on June 2, 2008, and Moody's downgraded Lehman to A2 on July 17, 2008. Fitch's rating was AA- through June 9, 2008, when it was downgraded to A+. Even after the downgrades, however, Lehman continued to be rated at least five notches above speculative grade.

55. Exhibit 22 provides a guide to the long-term ratings of major CRAs. An "A" rating from S&P is given to an obligor who has a "strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories."[45] "A" rated Moody's issuers are "subject to low credit risk."[46] Additionally, according to Fitch, "A" ratings "denote expectations of low default risk."[47]

56. Major CRAs also compile data on actual historical default rates for debt issuers with various ratings. As shown in Exhibit 23, issuers with the same ratings as Lehman after its downgrades ("A" rating by S&P, "A2" by Moody's, and "A+" by Fitch) are associated with cumulative two-year default probabilities of less than two tenths of one percent. In other words, only two issuers out of every

[44] "Fitch Ratings – Fitch Solutions | About Us," Fitch Ratings, available at http://www fitchratings.com/jsp/creditdesk/AboutFitch faces?context=1&detail=19, viewed on January 13, 2011.

[45] "Understanding Standard & Poor's Ratings Definitions," Standard & Poor's, June 3, 2009, p. 10.

[46] "Rating Symbols and Definitions," Moody's Investors Service, November 2009, p. 5.

[47] "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010, p. 9.

thousand issuers who received a rating of A from S&P defaulted within two years. For a Moody's rating of A2 or a Fitch rating of A+, this ratio is even lower.

57. The same holds true when analyzing Lehman's short-term ratings. Lehman was assigned a short-term rating of A-1 by S&P, P-1 by Moody's, and F-1 by Fitch from July 1, 2007 to September 14, 2008.[48] Exhibit 24 presents a guide to short-term credit ratings issued by major CRAs. An A-1 rating by S&P is given to an issuer with a "strong capacity to meet its financial commitments."[49] Moody's gives P-1 ratings to issuers who have a "superior ability to repay short-term debt obligations."[50] An F-1 rating by Fitch "indicates the strongest intrinsic capacity for timely payment of financial commitments."[51,52] Lehman maintained these ratings through the date of its bankruptcy filing.[53]

58. S&P and Moody's also compile data on actual historical defaults of debt issuers by short-term rating category. As shown in Exhibit 25, issuers with the same short-term credit ratings as Lehman are associated with cumulative one-year default probabilities of less than one tenth of one percent.

59. In addition to their credit ratings, S&P, Moody's, and Fitch each publish an "Outlook" for rated companies, which expresses the agencies' opinions about the likely direction of an issuer's rating over the medium term (meaning, in the case of S&P, typically six months to two years).[54] S&P's Outlook for Lehman was

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48 Bloomberg L.P.

49 "Standard & Poor's Ratings Definitions," Standard & Poor's, August 20, 2010.

50 "Rating Symbols and Definitions," Moody's Investors Service, November, 2009, p. 7.

51 "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010, p. 18.

52 Fitch changed Lehman's short-term credit rating from F1+ to F1 on June 9, 2008. (Bloomberg L.P.)

53 Bloomberg L.P.

54 "A Moody's rating outlook is an opinion regarding the likely direction of an issuer's rating over the medium term. Where assigned, rating outlooks fall into the following four categories: Positive (POS), Negative (NEG), Stable (STA), and Developing (DEV - contingent upon an event)." ("Rating Symbols and Definitions," Moody's Investors Service, November 2009, p. 43); "A Standard & Poor's rating outlook assesses the potential direction of a long-term credit rating over the intermediate term (typically six months to two years). In determining a rating outlook,

"stable" through April 3, 2008, when it was revised to "negative."[55] Despite this change in its Outlook, however, S&P did not reduce its rating of Lehman until June 2, 2008, when the rating was lowered to A.[56] Moody's had a "positive" outlook for Lehman until March 17, 2008, when it was revised to "stable;"[57] Moody's revised Lehman's outlook to "negative" on June 9, 2008 and then placed Lehman's rating on review for downgrade on June 13, 2008,[58] but did not reduce its rating until July 17, 2008.[59] Fitch's outlook for Lehman was "stable" through April 1, 2008, when it was revised to "negative."[60] Despite this change in outlook, Fitch continued to rate Lehman AA- until June 9, 2008 when the rating was lowered to A+.[61] Fitch maintained Lehman's outlook at negative even after the downgrade but also affirmed Lehman's A+ rating in July 9, 2008.[62] Fitch placed Lehman on "Rating Watch Negative" on September 9, 2008, but continued to rate Lehman A+ up to its bankruptcy filing on September 15, 2008.[63]

60. To summarize, the consensus among the major credit rating agencies between July 1, 2007 and Lehman's bankruptcy filing was that Lehman had "a strong

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consideration is given to any changes in the economic and/or fundamental business conditions." ("Standard & Poor's Ratings Definitions," Standard & Poor's, August 20, 2010.)

55 "Summary: Lehman Brothers Holdings Inc.," Standard & Poor's, April 3, 2008.

56 "Research: Lehman Brothers Holdings Inc. Rating Lowered to 'A' From 'A+'; Outlook Negative," Standard & Poor's, June 2, 2008; and Bloomberg L.P.

57 "Rating Action: Moody's Affirms Lehman's A1 Rating; Outlook Now Stable," Moody's Investors Service, March 17, 2008.

58 "Rating Action: Moody's Changes Lehman's Rating Outlook to Negative," Moody's Investors Service, June 9, 2008; "Rating Action: Moody's Places Lehman's A1 Rating on Review for Downgrade; Prime-1 Affirmed," Moody's Investors Service, June 13, 2008; and Bloomberg L.P.

59 "Rating Action: Moody's Lowers Lehman Brothers Rating to A2; Outlook Negative," Moody's Investors Service, July 17, 2008; and Bloomberg L.P.

60 "Fitch Revises Outlook on Lehman Brothers to Negative; Affirms 'AA-/F1+' IDRs," Fitch Ratings, April 1, 2008.

61 "Fitch Downgrades Lehman Brothers' L-T & S-T IDRs to 'A+/F1'; Outlook Negative," Fitch Ratings, June 9, 2008; and Bloomberg L.P.

62 "Fitch Affirms Lehman Brothers' IDRs at 'A+/F1'; Outlook Negative," Fitch Ratings, July 9, 2008.

63 "Fitch Places Lehman Brothers on Rating Watch Negative," Fitch Ratings, September 9, 2008; and Bloomberg L.P.

capacity to meet its financial commitments" and was "subject to low credit risk."[64] Moreover, issuers with the same ratings as those assigned to Lehman (following its downgrade to A/A2 in June/July 2008) have rarely defaulted on their debt (fewer than two issuers out of every thousand after two years as illustrated by S&P, Moody's, and Fitch data on the historical incidence of default by rating). Thus, the assessments of the rating agencies provide further evidence that Lehman's bankruptcy was not reasonably foreseeable.[65]

B. Equity Analysts' Coverage and Recommendations Did Not Indicate a Bankruptcy Filing Was Reasonably Foreseeable

61. In addition to being monitored by the credit rating agencies, Lehman was also followed by equity analysts. Equity analysts examine the financial prospects of firms and provide earnings estimates, stock recommendations, and commentary and analysis on many publicly traded companies. Brokerage firms spend a great deal of resources gathering and analyzing company information. Analysts build reputational capital and are rewarded for being able to provide accurate forecasts and timely recommendations. Because of these reasons, analysts would have been in a position to opine on the foreseeability of a bankruptcy filing. If analysts were able to foresee Lehman's bankruptcy, one would expect to observe "sell" recommendations from most analysts covering Lehman.

62. Exhibits 26 and 27 summarize the recommendations of the equity analysts surveyed by Thomson IBES who followed Lehman during the period from July 1, 2007 to September 12, 2008.[66] I found that throughout the entire period, at least

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64 "Understanding Standard & Poor's Ratings Definitions," Standard & Poor's, June 3, 2009, p. 10; and "Rating Symbols and Definitions," Moody's Investors Service, November 2009, p. 5.

65 Furthermore, analysis by mayor CRAs also supports my conclusion that Lehman's bankruptcy was not reasonably foreseeable. For example, S&P discussed in a report "[t]he unforeseen collapse of Lehman Brothers" See, Vazza, D., Aurora, D., and Kraemer, N., "Default, Transition, and Recovery: 2008 Annual Global Corporate Default Study and Rating Transitions," Standard and Poor's, April 2, 2009.

66 For Lehman, Thomson IBES compiled the buy/hold/sell recommendations of approximately 20 equity analysts.

90 percent of analysts had a buy or hold recommendation for Lehman's stock. In some periods, all of the surveyed analysts had a buy or hold recommendation (that is, no analyst recommended selling Lehman's stock). In August and September 2008, the percentage of analysts recommending buy or hold for Lehman was greater than the percentage of analysts recommending buy or hold for Goldman Sachs, Merrill Lynch, Bank of America, Wells Fargo, Citigroup, and Wachovia. None of these companies filed for bankruptcy.

63. I also reviewed numerous equity analyst reports filed between July 1, 2007 and September 15, 2008 and found none prior to September 9, 2008 that concluded that Lehman would likely file for bankruptcy.[67] Exhibit 28 presents the ratings and commentary excerpts from several of these reports. Expectation of a bankruptcy filing certainly affects stock prices. If Lehman's bankruptcy had been reasonably foreseeable, analysts who followed Lehman would have incorporated that expectation into their reports and discussed the implications and prospects; none did. Moreover, given that analysts have incentives to make accurate forecasts and recommendations and spend a great deal of their time gathering information on companies, analysts would have anticipated Lehman's bankruptcy, had it been reasonably foreseeable. Again, none did.

64. In the midst of Bear Stearns' demise in March 2008, equity analysts argued that Lehman was not similar to Bear Stearns for several reasons. They pointed to Lehman's international diversification, strong execution track record, and seasoned management.[68] They also noted that Lehman, unlike Bear Stearns, had financial backing from the Federal Reserve and that "anyone attacking Lehman

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[67] These reports were found by searching ThomsonOne Banker's equity research report database. I reviewed reports published by The Buckingham Research Group, Inc., CIBC Capital Markets, Credit Suisse, Deutsche Bank Securities Inc., Fox Pitt Kelton Cochran Caronia Waller, Fox-Pitt, Kelton, Inc., HSBC Global Research, JPMorgan, Ladenburg, Thalmann & Co. Inc., Morgan Stanley, Oppenheimer And Co., Punk, Ziegel & Co., and Wachovia Capital Markets, LLC.

[68] "Lehman Brothers Holding; It is not Bear," Deutsche Bank, March 17, 2008, p. 1; and "Upgrading to Buy; Reality Will Trump Fear," Citigroup, March 28, 2008, p. 1.

would have to be able to bankrupt the Fed to break Lehman."[69]

65. Several analysts also evaluated the ability of investment banks, including Lehman, to survive, focusing on liquidity and access to credit. For example, a report issued by Buckingham Research Group in March 2008 stated: "All of the brokers besides [Bear Stearns] have total liquidity in excess of short-term debt and net repo financing, with [Lehman] the highest [most favorable] at 418% and [Goldman Sachs] the lowest at 116%."[70] Morgan Stanley Research issued a report titled "Lehman Brothers: Bruised, Not Broken – and Poised for Profitability" on June 30, 2008. The report stated "… we believe downside risk stems from medium-term damage to the franchise rather than a Bear Stearns-like run-on-bank scenario;" the report further stated "we believe that comparisons to Bear do not hold up, particularly in the wake of the Fed's aggressive action [establishing the Primary Dealer Credit Facility] in the wake of Bear's collapse."[71]

66. Although Lehman experienced difficulties in June and July 2008, many market participants remained confident about its future. Several analysts maintained that Lehman was not another Bear Stearns situation and believed that Lehman was well positioned to not only survive the crisis but also expand and recover in the coming years.[72] Additionally, despite the fact that Lehman reported a loss for the second quarter of 2008, many research analysts remained optimistic about Lehman's prospects. Through June and July, equity analysts noted Lehman's strength in revenue, solid capital footing, lowered exposure to risk, and increased

69 "Attacking the Federal Reserve," Punk Ziegel & Company, March 18, 2008, p. 1.

70 "Evaluating Liquidity at the Rest of the Brokers in a 'Run on the Bank' Scenario," The Buckingham Research Group, March 17, 2008, p. 3.

71 "Lehman Brothers: Bruised, Not Broken – and Poised for Profitability," Morgan Stanley, June 30, 2008, pp. 3 and 8.

72 "Follow-Up Thoughts on Recent Bearish Arguments," Fox-Pitt Kelton Cochran Caronia Waller, June 4, 2008, p. 1; "Lowering Estimates," Deutsche Bank, June 5, 2008, pp. 1 and 2; "Bruised, Not Broken – and Poised for Profitability," Morgan Stanley, June 30, 2008, p. 8; and "Greater Than Expected Loss, But More Than in the Stock," The Buckingham Research Group, June 9, 2008, p. 1.

diversification.[73]

67. Finally, even in the days immediately preceding Lehman's bankruptcy filing, analysts were not uniformly negative in their assessment. On September 10, 2008, Credit Suisse and JPMorgan gave Lehman a "Neutral" rating while Fox-Pitt Kelton Cochran Caronia Waller gave it an "Outperform" rating, Oppenheimer a "Perform" rating, Morgan Stanley an "Overweight" rating, and Deutsche Bank a "Buy" rating.[74] On September 11, 2008, Lehman was given "Outperform," "Buy," "Neutral," "Market Perform," "Hold," and "Underweight" ratings.[75] Several analysts disagreed with the major CRAs' negative outlooks, stating that Lehman remained "one of the best companies on Wall Street."[76] In addition, HSBC reiterated that:

> *"Lehman is a better, more diversified franchise [than Bear Stearns]. It is much more conservatively funded, and carries a huge liquidity pool of some $42 billion. It has access to the Federal Reserve for emergency funding. It also has one thing that it shares with Bear Stearns—it is too big to fail in our opinion."*[77]

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73 "Greater Than Expected Loss, But More Than in the Stock," The Buckingham Research Group, June 9, 2008, p. 1; "2Q08: Risks Are Coming Down; Reaffirm S. Buy," The Buckingham Research Group, June 17, 2008, pp. 1, 3, and 4; and "Plausible Downside on Fundamentals is Priced In," Morgan Stanley, July 24, 2008, p. 7.

74 "Starting the Clean Up: Follow Through Critical," Credit Suisse, September 10, 2008, p. 1; "Management Has Plan, Not Action – We Await Inv. Mgmt Sale," JPMorgan, September 10, 2008, p. 1; "LEH 3Q08: Core Results As Expected, Dispositions Bigger," Fox-Pitt Kelton Cochran Caronia Waller, September 10, 2008, p. 1 ; "LEH Reports 3Q08 EPS Loss of ($5.92) and Net Write-Down of $5.6B," Oppenheimer, September 10, 2008, p. 1; "Quick Take on 3Q EPS, Strategic Initiatives," Morgan Stanley, September 10, 2008, p. 1; and "3Q08 pre-release," Deutsche Bank, September 10, 2008, p. 1.

75 "LEH: A Great Restructuring Plan, But Will the Markets Get It?," Fox-Pitt Kelton Cochrain Caronia Waller, September 11, 2008, p. 1; "Rating Agency Risk Too High," The Buckingham Research Group, September 11, 2008, p. 1; "Lehman's Non-Strategy," Ladenburg Thalman, September 11, 2008, p. 1; "LEH: Pre-Announces and Highlights Initiatives – Adjusting Ests.," Wachovia, September 11, 2008, p. 1; "Downgrade from Buy to Hold on rating agency reports," Deutsche Bank, September 11, 2008, p. 1; and "De-risking and Depending on Markets to Hold," HSBC Global Research, September 11, 2008, p. 1.

76 "Rating Agency Risk Too High," The Buckingham Research Group, September 11, 2008, p. 1; and "Lehman's Non-Strategy," Ladenburg Thalmann, September 11, 2008, p. 1.

77 "De-risking and Depending on Markets to Hold," HSBC Global Research, September 11, 2008, p. 5.

68. Overall, my analysis of equity analysts' reports shows that analysts consistently recommended buying or holding Lehman's stock leading up to September 2008. This is further supported by the fact that no analyst concluded that Lehman was at risk of filing for bankruptcy prior to September 9, 2008. The assessments of the equity analysts further demonstrate that Lehman's bankruptcy filing was not reasonably foreseeable.

VI. Other Market Evidence Indicates that Lehman's Bankruptcy Was Not Reasonably Foreseeable

A. Lehman's Bankruptcy Was Not Reasonably Foreseeable Even in the Final Weeks Before Lehman's Collapse Because Other Actions Could Have Prevented Bankruptcy

69. As mentioned above, the outstanding Lehman obligations would be repaid if Lehman either continued as an ongoing concern or merged with another entity who would assume those obligations. Months before its bankruptcy filing, Lehman was rumored to be in negotiations with several interested buyers. As early as July 2008, the Royal Bank of Canada considered buying Lehman.[78] In late August, reports of a possible buyout caused Lehman's share price to increase substantially.[79] And in early September 2008, the list of potential buyers grew to include Bank of America, JC Flowers & Co., China Investment Co., and Barclays.[80] Although none of these mergers came to fruition, an acquisition would have prevented the bankruptcy filing.

70. Market participants viewed a Federal Reserve bailout possibility as highly likely. Following the government-assisted acquisition of Bear Stearns in March 2008,

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[78] "Wall Street Under Siege," Portfolio.com, September 17, 2008.

[79] Gangahar, A., "Lehman Buy-out Prospects Boost Wall Street," *Financial Times (FT.com)*, August 22, 2008.

[80] Sender, H., Guerrera, F. and Larsen, P.T., "BofA, JC Flowers, CIC Planning Joint Lehman Brothers Bid," *Financial Times (FT.com)*, September 12, 2008.

many market participants believed the Federal Reserve would also provide financial support to Lehman. For example, after Lehman declared bankruptcy, George Soros stated that: "In the past, whenever the financial system came close to a breakdown, the authorities rode to the rescue and prevented it from going over the brink. That is what I expected in 2008 but that is not what happened."[81] Lehman and Bear Stearns were players in the same market, though Lehman was much larger. Lehman's assets were $786 billion[82] at the quarter ended February 29, 2008, while Bear Stearns' assets were almost $400 billion[83] at the quarter ended February 29, 2008. It seemed logical to assume that, "[i]f Bear was too big to fail, how could Lehman, at twice its size, not be? If Bear was too entangled to fail, why was Lehman not?"[84] The Lehman merger negotiations may also have been stalled as potential buyers held out for government assistance.[85] Even as the government remained adamant that it would not be involved in any rescue during the days leading to Lehman's bankruptcy, reports suggested that it was "possible that as negotiations proceed[ed] [the Federal Reserve and Treasury] may be pressed to take on some financial role."[86]

71. The government's decision to allow Lehman to go bankrupt came as a surprise to the market. In the days following the bankruptcy, analysts' reports referred to Lehman's collapse as a "shock" and a "nasty surprise," citing previously held "widespread expectations that a deal on Lehman would somehow be brokered."[87]

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81 Soros, G., "The Game Changer," *Financial Times (FT.com)*, January 29, 2009.

82 Lehman Brothers Form 10-Q for the period ended February 29, 2008.

83 The Bear Stearns Companies, Inc. Form 10-Q for the period ended February 29, 2008.

84 Blinder, A., "Six Errors on the Path to the Financial Crisis," *The New York Times*, January 25, 2009.

85 Bruno, J.B. and Crutsinger, M., "Lehman's Future in Doubt, Banks Seen Unveiling Plan to Restore Confidence in Financial System," Associated Press, September 15, 2008; and Gasparino, C., "Street Prepares for Worst as Lehman Deal Stalls," CNBC, September 14, 2008.

86 Guha, K., "No Public Subsidy for Lehman Takeover," *Financial Times (FT.Com)*, September 12, 2008.

87 "Investment Perspectives," Morgan Stanley, September 24, 2008, p. 6; "Bank Stocks Fail to Rally on AIG Bailout - Lehman Bankruptcy Still Reverberating," JPMorgan, September 18, 2008, p. 1;

It was clear that, "[c]oming just six months after Bear's rescue, the Lehman decision tossed the presumed rule book out the window."[88] Dick Fuld, Lehman's chief executive officer, indicated in a congressional hearing that he would "go to his grave wondering why the U.S. government had opted to save AIG and Bear Stearns but had judged Lehman unworthy of federal bail-out."[89] Others shared the view that allowing Lehman to fail had been "one of the biggest blunders in this whole financial crisis. Christine Lagarde, France's finance minister, called the decision 'a genuine error.'"[90]

72. As discussed in the previous sections, the market price analysis of Lehman's debt, equity, and credit default swaps reflect the market consensus that Lehman would not default on its obligations and instead would continue as a going concern, merge with another firm, or receive government assistance. These expectations were reasonably founded market beliefs at the time and based, in part, on the government-assisted acquisition of Bear Stearns. Therefore, the widespread expectations of a possible merger or government intervention are additional reasons that support my conclusion that Lehman's bankruptcy was not reasonably foreseeable.

B. Other Sophisticated Market Investors Held Lehman Securities at the Time of Bankruptcy

73. When Lehman filed for bankruptcy, its securities were widely held by many types of investors, including investment vehicles with conservative investment mandates such as money market funds, local government investment pools, and pension funds. For example, the Reserve Primary Fund, one of the oldest and

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"Shock Therapy," UniCredit, September 15, 2008, p. 1; and "2009 New Year Preview: Sector Themes for 2009," RBC Capital Markets, January 2009, p.56.

88 Blinder, A., "Six Errors on the Path to the Financial Crisis," *The New York Times*, January 25, 2009.

89 "Keynes, Libor, Leverage," *Financial Times (FT.com)*, December 30, 2008.

90 Sorkin, A.R., "How the Fed Reached Out to Lehman," *The New York Times*, December 16, 2008.

largest money market funds, held $785 million in Lehman-issued commercial paper. After Lehman's bankruptcy filing, the net asset value of the Reserve Primary Fund dropped below $1 per share, and the Reserve Primary Fund became the first retail money market fund to "break the buck."[91] Sponsors of other money market funds entered into support agreements to prevent the net asset values of their funds from similarly falling below one dollar per share: "Other fund families, including Wachovia's Evergreen Funds, Northwestern Mutual's Russell Funds, Riversource Investments, and Columbia Management, took similar actions [to support their money market funds] due to holdings of Lehman debt."[92]

74. Government investment pools also held Lehman securities at the time of bankruptcy and experienced substantial losses on these investments. For example, "Florida public agencies lost a total of more than $400 million, mostly from a state investment pool. California municipalities lost a total of $250 million across some 28 cities and counties.[93] Securities lending programs, including Bank of New York Mellon, Wells Fargo, Northern Trust, and JPMorgan Chase, also held Lehman-issued securities at the time that Lehman declared bankruptcy.[94] In light of the economic conditions facing both Lehman and the economy at this time, many sophisticated investors apparently agreed that Lehman investments

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91 Waggoner, J., "Reserve Primary Money Market Fund Breaks A Buck," *USA Today*, updated September 17, 2008.

92 "Report of the Money Market Working Group," Investment Company Institute, March 17, 2009, p. 62; See also, Gullapalli, D., Anand, S. and Maxey, D., "Money Fund, Hurt by Debt Tied to Lehman, Breaks the Buck," *The Wall Street Journal*, September 17, 2008; and Condon, C., "Reserve Money Fund Falls Below $1, Delays Withdrawals," Bloomberg, September 17, 2008.

93 Carreyrou, J., "Lehman's Ghost Haunts California," *The Wall Street Journal*, February 24, 2010.

94 See, for example, Second Amended Class Action Complaint, *IBEW vs. Bank of New York Mellon, N.A.*, Civil Action No. 09-cv-06273 (RMB)(AJP), Southern District of New York, December 17, 2009; Complaint, *Board of Trustees of the Imperial County Employees' Retirement System vs. JPMorgan Chase Bank, N.A.*, 1:09-CV-03020-UA, Southern District of New York, March 27, 2009; "First Amended Complaint," *Copic Insurance Company v. Wells Fargo*, 09-cv-00041-WDM-BNB, District of Colorado, February 20, 2009; "Northern Trust Global Securities Lending Presentation (October 2008)," Exhibit 18 to "Plaintiffs' Proposed Findings of Fact and Conclusions of Laws," *BP Corporation North America Inc. Savings Plan Investment Oversight Committee et al. v. Northern Trust Investments N.A. and the Northern Trust Company*, 1:08-cv-10533, Northern District of Illinois, December 4, 2008.

continued to comply with their conservative investment profile and maintained positions in Lehman securities through the bankruptcy filing. If Lehman's bankruptcy filing had been reasonably foreseeable, one would not expect to observe the quantity of sophisticated investors with conservative mandates continuing to hold Lehman securities. The fact that so many conservative investors continued to hold Lehman's securities at this time buttresses my opinion that Lehman's bankruptcy was not reasonably foreseeable.

75. Furthermore, Lehman's securities were not only held by sophisticated market investors, Lehman's stock was part of the S&P 500 *and* S&P 100 indices through all of 2007 and up to its bankruptcy. [95] S&P defines the S&P 100 as consisting "… of 100 companies selected from the S&P 500. To be included, the companies should be among the larger and more stable companies in the S&P." [96] Among the criteria for inclusion in the indices are adequate liquidity and financial viability.[97]

76. Finally, the after-effects of Lehman's collapse are also a clear indication of how unforeseen its demise was. Worldwide, many sophisticated investors such as banks, insurers, investment advisors, pension plans, financial institutions, and hedge funds, suffered massive losses tied to the collapse of Lehman.[98]

77. Sophisticated investors from all over the world were making their investment decisions by relying on publicly available information just as Wachovia's securities lending program did. It would be irrational for investors to continue

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95 It was not until Lehman filed for bankruptcy on September 15, 2008 that S&P dropped Lehman from its S&P 500 and S&P 100 indices. See Stempel, J. and Hill, G., "S&P 500 to Drop Lehman Brothers, Add Harris," Reuters, September 15, 2008.

96 "S&P U.S. Indices, Index Methodology," Standard & Poor's, August 2009, pp. 5-6.

97 "S&P U.S. Indices, Index Methodology," Standard & Poor's, August 2009, pp. 5-6.

98 See, for example, Ivry, B., Pittman, M. and Harper, C., "Sleep-At-Night-Money Lost in Lehman Lesson Missing $63 Billion," Bloomberg, September 8, 2009; Thomas, L. Jr., "Big Hedge Funds Chasing Assets Held by Lehman," *International Herald Tribune*, October 2, 2008; Duncan, G., "Lehman Collapse Sends Shockwave Round World," *The Times*, September 16, 2008; Smith, M., "$4.5 Trillion: Bill to Taxpayer of Bailout," *The Herald*, September 14, 2009; and "Broader Lessons from Lehman Brothers' Bankruptcy," Standard & Poor's, September 17, 2008.

holding long positions in Lehman securities if Lehman's bankruptcy had been reasonably foreseeable Therefore, the fact that many other sophisticated investors continued to hold Lehman investments until Lehman declared bankruptcy further supports my conclusion that Lehman's bankruptcy was not reasonably foreseeable. If Lehman's bankruptcy was foreseeable, these sophisticated investors with substantial sums at risk, would have sold their Lehman investments rather than continue to hold onto their investments until bankruptcy.

VII. Lehman's Collapse Is Consistent with the Run on the Bank Phenomenon

78. Following Lehman's bankruptcy filing, S&P published a report assessing the cause of the bankruptcy. The report stated that "facing a likely complete collapse in confidence on the part of creditors, counterparties, and customers when it opened for business on Monday, Sept. 15, Lehman Brothers Holdings Inc. filed for Chapter 11 bankruptcy protection."[99] The report also stated: "In conclusion, we believe the downfall of Lehman reflected escalating fears that led to a loss of confidence—ultimately becoming a real threat to Lehman's viability in a way that fundamental credit analysis could not have anticipated."

79. Such a "complete collapse in confidence" is consistent with the "run on the bank" phenomenon. In a run on the bank, the collapse of the institution is rapid and unforeseen. Commercial banks fund themselves with short-term deposits and use those deposits to issue mortgages and other long-term loans. A run on the bank is defined as a "demand for their money by many depositors all at once…Such a run is caused by a breach of confidence in the bank."[100] If a bank does not have enough cash to satisfy these demands, the bank may be rendered insolvent.

80. This "run on the bank" phenomenon is not unique to commercial banks. A run on the bank may occur at other institutions that fund themselves with short-term

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99 "Why Was Lehman Brothers Rated 'A'?," Standard & Poor's, September 24, 2008, p. 5.

100 Downes, J. and Goodman, J.E., *Dictionary of Finance and Investment Terms*, Seventh Edition, Barron's Financial Guides, p. 603.

financing and invest in longer term assets. Like many other "shadow banks" at the time, Lehman funded itself with short-term borrowings and used those borrowings to make long-term investments.[101] Specifically, a substantial portion of Lehman's funding came from commercial paper and repurchase transactions which have short-term maturities, usually of less than a year.[102] This maturity mismatch between Lehman's assets and liabilities created the potential for a run on the bank. For example, if Lehman were unable to roll over most of its overnight repurchase agreements and commercial paper, it would face a liquidity crunch similar to the one experienced by commercial banks during a run-on-the-bank.

81. Bank runs are a topic of ongoing research in the fields of finance and economics.[103] Though many theories have been proposed, there is no established and reliable method of predicting bank runs. Nevertheless, as described earlier, financial institutions with asset-liability maturity mismatches are vulnerable to bank-runs. The incentive to withdraw one's funds is created by the belief that others will withdraw their funds first. [104] In other words, a bank run is triggered by the belief that there will be a bank run. By the time creditors believe that there will be a bank run, the run has already started, and it is, generally, too late to prevent or avoid. Clearly, when bank runs occur, they arise very quickly and

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101 Financial institutions which do not accept deposits and are not regulated by the Federal Reserve, like Lehman, have come to be called "shadow banks". Investment banks, mutual funds, hedge funds, finance companies, pension funds, and insurance companies are all part of the "shadow" banking system. See, Hubbard, R.G. and O'Brien, A.P., *Money, Banking, and the Financial System*, First Edition, Pearson Prentice Hall, 2011, Chapters 10 and 11.

102 Hubbard, R.G. and O'Brien, A.P., *Money, Banking, and the Financial System*, First Edition, Pearson Prentice Hall, 2011, Chapters 10 and 11.

103 See Starr, M.A. and Yilmaz, R., "Bank Runs in Emerging Market Economies: Evidence From Turkey's Special Finance Houses," *Southern Economic Journal*, 73(4), April 2007: 1112-1132; See also Schotter, A. and Yorulmazer, T., "On the Dynamics and Severity of Bank Runs: An Experimental Study," *Journal of Financial Mediation*, 18 (2009): 217-241.

104 For example, U.S. Treasury Secretary Timothy Geithner described the freezing of the credit markets as a "run" on the entities of the shadow banking system. See, Geithner, T.F., "Causes of the Financial Crisis and the Case for Reform," Testimony Before the Financial Crisis Inquiry Commission, May 6, 2010.

without warning.[105] The precipitous collapse of Lehman Brothers on September 15, 2008 was consistent with a run on the bank, which is reasonably unforeseeable.

Signed: R Glenn Hubbard

Robert Glenn Hubbard
January 21, 2011

105 For a discussion of the run-on-the-bank phenomenon, see, for example, DeAngelo, H., DeAngelo, L. and Gilson, S.C., "The Collapse of First Executive Corporation: Junk Bonds, Adverse Publicity, and the 'Run on the Bank' Phenomenon," *Journal of Financial Economics* 36 (March 1994): 287-336.

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Exhibit 1
Lehman's 25 Largest U.S. Dollar Debt Issuances at Time of Default

CUSIP [1]	Seniority	Issue Date	Years to Maturity from Issuance	Maturity Date	Coupon	Coupon Rate	Issued Amount ($ millions)	Notes
5252M0BZ9	Senior Unsecured	1/22/2008	5.0	1/24/2013	Fixed Rate	5.625%	$ 4,000	
52517P2K6	Senior Unsecured	5/25/2007	3.0	5/25/2010	Variable	LIBOR 3M + 14 bp	2,750	
5252M0FD4	Senior Unsecured	4/24/2008	10.0	5/2/2018	Fixed Rate	6.875%	2,500	
52517P5X5	Senior Unsecured	9/26/2007	7.0	9/26/2014	Fixed Rate	6.200%	2,250	
524908R36	Junior Subordinated	7/19/2007	10.0	7/19/2017	Fixed Rate	6.500%	2,000	[2]
5249087N4	Subordinated	5/9/2008	30.0	5/11/2038	Fixed Rate	7.500%	2,000	[2]
52517PW31	Senior Unsecured	3/23/2007	2.0	3/23/2009	Variable	LIBOR 3M + 7 bp	1,600	
52517PSC6	Senior Unsecured	1/10/2002	10.0	1/18/2012	Fixed Rate	6.625%	1,500	
52517PR78	Senior Unsecured	1/12/2007	5.0	1/12/2012	Variable	LIBOR 3M + 23 bp	1,500	
52517PR60	Senior Unsecured	1/12/2007	5.1	2/6/2012	Fixed Rate	5.250%	1,500	
52517P4C2	Senior Unsecured	7/19/2007	5.0	7/19/2012	Fixed Rate	6.000%	1,500	
524908R44	Subordinated	7/19/2007	30.0	7/17/2037	Fixed Rate	6.875%	1,500	[2]
5249087M6	Subordinated	12/21/2007	10.0	12/28/2017	Fixed Rate	6.750%	1,500	[2]
52517PN98	Senior Unsecured	11/16/2006	3.0	11/16/2009	Variable	LIBOR 3M + 10 bp	1,350	
524908UB4	Subordinated	10/24/2006	10.2	1/3/2017	Fixed Rate	5.750%	1,250	[2]
52517PVV0	Senior Unsecured	2/25/2004	10.0	3/13/2014	Fixed Rate	4.800%	1,150	
524908W97	Senior Unsecured	9/27/2007	2.0	9/25/2009	Variable	LIBOR 3M + 16 bp	1,135	[2] [3] [4]
52517PYN5	Senior Unsecured	1/11/2005	5.0	1/27/2010	Fixed Rate	4.250%	1,100	
524908CM0	Senior Unsecured	8/15/2000	10.0	8/15/2010	Fixed Rate	7.875%	1,000	
52517PA35	Senior Unsecured	7/13/2005	5.0	7/26/2010	Fixed Rate	4.500%	1,000	
52517PF63	Senior Unsecured	3/29/2006	10.0	4/4/2016	Fixed Rate	5.500%	1,000	
52517PG21	Senior Unsecured	4/3/2006	3.0	4/3/2009	Variable	LIBOR 3M + 9 bp	1,000	
52517PQ46	Senior Unsecured	12/21/2006	2.0	12/23/2008	Variable	LIBOR 3M + 5 bp	1,000	
52517P5Y3	Senior Unsecured	9/26/2007	20.0	9/27/2027	Fixed Rate	7.000%	1,000	
52517PD65	Senior Unsecured	12/21/2005	5.0	12/23/2010	Variable	LIBOR 3M + 21 bp	975	
						Total	$ 39,060	
						Total long-term borrowings as of 5/31/2008	128,182	
						Percent contained in this sample	30%	

Notes:
[1] Zero-coupon securities were issued at a discount to par value and are excluded from this sample
[2] CUSIPs 524908R36, 5249087N4, 5249087M6, 524908R44, 524908UB4, 524908W97 were identified as callable securities
[3] No price data is available for CUSIP 524908W97.
[4] Spread to benchmark interest rate increases annually. The coupon rate shown applies to the first year past the issuance date

Sources:
[1] Bloomberg L.P.
[2] Lehman Brothers Holdings Inc., Form 10-Q for the quarterly period ended May 31, 2008

Exhibit 2
Lehman Debt Issuances

At-Issue Note

CUSIP	Seniority	Issue Date	Years to Maturity from Issuance	Maturity Date	Coupon Rate	Issued Amount ($ millions)	Notes
52517PW56	Senior Unsecured	3/23/2007	2.0	3/23/2009	Fed Funds (Open) + 16 bp	650	[1]

Comparable Lehman Notes

CUSIP	Seniority	Issue Date	Years to Maturity from Issuance	Maturity Date	Coupon Rate	Issued Amount ($ millions)	Notes
52517PE23	Senior Unsecured	1/25/2006	3.0	1/23/2009	LIBOR 3M + 9 bp	500	[2]
52517PG21	Senior Unsecured	4/3/2006	3.0	4/3/2009	LIBOR 3M + 9 bp	1,000	[2]
52517PQ46	Senior Unsecured	12/21/2006	2.0	12/23/2008	LIBOR 3M + 5 bp	1,000	[2]
52517PW31	Senior Unsecured	3/23/2007	2.0	3/23/2009	LIBOR 3M + 7 bp	1,600	[2]

Notes:

[1] At-issue note as represented by Counsel.

[2] Because the at-issue Lehman note has limited TRACE pricing data, I used a set of comparable Lehman notes to determine the price of the at-issue note. I selected comparable notes that (1) are senior unsecured, (2) have a maturity date between and including December 23, 2008 and June 23, 2009 (i.e., three months before and after the at-issue bond's maturity date), (3) are not subject to an early redemption option, and (4) have a coupon rate benchmarked to an interest rate index.

Sources:

[1] Bloomberg L.P.

[2] Lehman Brothers Holdings Inc., Form 424(b)(3), January 20, 2006.

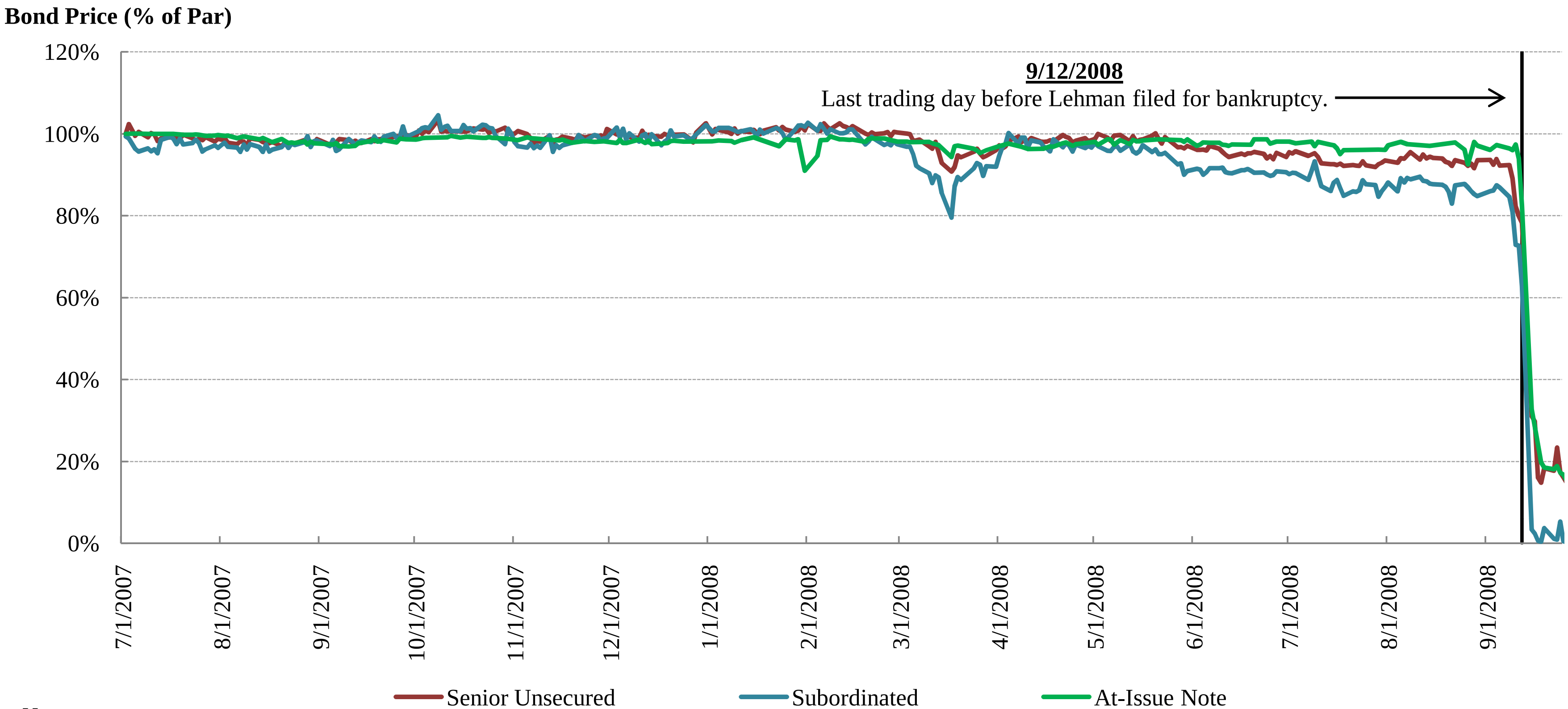
[3] Lehman Brothers Holdings Inc., Form 424(b)(3), March 29, 2006.

[4] Lehman Brothers Holdings Inc., Form 424(b)(2), May 30, 2006.

[5] Lehman Brothers Holdings Inc., Form 424(b)(3), December 18, 2006.

[6] Lehman Brothers Holdings Inc., Form 424(b)(2), March 20, 2007.

Exhibit 3
Weighted-Average Prices for Lehman's 25 Largest U.S. Dollar Debt Issuances by Seniority
July 1, 2007 - September 30, 2008



Notes:

[1] Weighted-average prices for Lehman's 25 largest U.S. dollar debt issuances are computed daily. The average is weighted by the issuance amount of each bond issue. Bonds are weighted and graphed only on the dates for which pricing information is present.

[2] The subordinated bonds include one CUSIP (524908R36) classified as junior subordinated.

[3] Lehman's 25 largest U.S. dollar debt issuances are as of the time of default. See Exhibit 1 for a description of these issuances.

[4] See Exhibit 2 for a description of the at-issue note.

[5] Prices close to par value after Lehman's bankruptcy were removed. According to trade reports posted by FINRA, these prices represent cancelled trades or special trades at seller's option.

[6] No price data are available for CUSIP 524908W97.

Sources:

[1] Bond price data are from the Trade Reporting and Compliance Engine (TRACE) via Bloomberg L.P.

[2] FINRA.

Exhibit 4
Bond Value as a Percent of the Value 12 Months Prior to Lehman's Bankruptcy Filing
Comparable Financial Companies

	Days Prior to Lehman Brothers' Bankruptcy Filing, September 15, 2008 [1][2][3]									
Company	**365**	**270**	**180**	**90**	**60**	**30**	**15**	**10**	**5**	**2**
Investment Banks										
Bear Stearns Companies, Inc [4]	100 0%	99 4%								
Goldman Sachs Group, Inc	100 0%	102 0%	100 1%	99 3%	97 6%	98 5%	98 0%	97 4%	98 1%	96 5%
Merrill Lynch & Co , Inc [5]	100 0%	100 1%	96 6%	94 1%	93 0%	94 4%	89 8%	91 8%	90 5%	76 2%
Morgan Stanley	100 0%	100 2%	97 1%	97 7%	94 1%	95 0%	96 0%	97 1%	94 7%	95 0%
Financial Institutions [6]										
American International Group, Inc	100 0%	100 7%	95 4%	92 8%	90 3%	85 1%	84 0%	80 3%	83 4%	68 6%
Bank of America Corp	100 0%	102 3%	102 7%	102 1%	101 3%	102 3%	102 2%	102 3%	102 4%	101 7%
Citigroup Inc	100 0%	99 5%	98 0%	98 5%	95 9%	97 5%	97 8%	96 6%	96 6%	96 5%
JPMorgan Chase & Co	100 0%	100 4%	101 3%	100 2%	99 4%	99 6%	100 0%	100 4%	99 1%	99 2%
Wachovia Corp [7]	100 0%	99 7%	99 6%	97 3%	92 7%	91 5%	92 0%	90 6%	91 2%	89 3%
Wells Fargo & Co [7]	100 0%	99 5%	99 5%	99 5%	98 9%	99 3%	99 9%	101 4%	98 7%	100 2%
Mean [8]	**100.0%**	**100.4%**	**98.9%**	**98.0%**	**95.9%**	**95 9%**	**95.5%**	**95.3%**	**95.0%**	**91.5%**
Median [8]	**100.0%**	**100.2%**	**99.5%**	**98.5%**	**95.9%**	**97 5%**	**97.8%**	**97.1%**	**96.6%**	**96.5%**
Lehman [9]	100 0%	101 2%	94 3%	95 8%	93 4%	94 6%	93 2%	92 7%	82 9%	76 0%
Lehman At-Issue Note [10]	100 0%	100 2%	98 3%	99 8%	98 9%	99 3%	99 3%	99 8%	98 6%	84 5%

Notes:
[1] For figures fewer than 30 days prior to September 15, 2008, the last available trading price within the two trading day window ending on the specified date is used
[2] For figures 30 days or more prior to September 15, 2008, the last available trading price within the 30 calendar day window ending on the specified date is used Bonds without price data are excluded from this analysis
[3] Figures for companies other than Lehman are calculated as the weighted average of bond value as a percent of the bond value 365 days prior to bankruptcy filing, using the company's ten largest outstanding U S Dollar corporate bond issues that were issued at least one year prior to Lehman's bankruptcy filing; in the case of several bonds qualifying for the tenth largest issuance, all are included The average is weighted by the issuance amount of each bond issue
[4] JPMorgan Chase & Co announced the acquisition of The Bear Stearns Companies, Inc on March 16, 2008
[5] Bank of America Corp announced the acquisition of Merrill Lynch & Co , Inc on September 14, 2008
[6] Financial institutions consist of financial entities that received at least $20 billion in TARP funds
[7] Wachovia Corp did not receive any TARP funds; Wells Fargo & Co announced the acqusition of Wachovia on October 3, 2008
[8] Mean and median exclude Lehman Brothers
[9] Figures for Lehman Brothers rely on the company's 25 largest U S dollar debt issuances outstanding as of the bankruptcy filing on September 15, 2008 (see Exhibit 1) Seven of these issuances are excluded from this analysis, as they were issued less than one year prior to the bankruptcy filing
[10] See Exhibit 2 for a description of the at-issue note
[11] All prices used in this analysis are sourced from TRACE as reported by FINRA Use of an alternative source, Bloomberg Generic Pricing offered by Bloomberg L P , does not materially affect the results

Sources:
[1] Bond price data are from the Trade Reporting and Compliance Engine (TRACE) via Bloomberg L P
[2] Capital IQ
[3] Ericson, M , Elaine He, and Amy Schoenfeld, "Tracking the $700 Billion Bailout," The New York Times, was used to identify TARP participants

Exhibit 5

Bond Value as a Percentage of Bond Value 12 Months Prior to Bankruptcy Filing

Banking and Financial Companies with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009

		Days Prior to Bankruptcy Filing [1][2][3]									
Company	**Bankruptcy Filing Date**	**365**	**270**	**180**	**90**	**60**	**30**	**15**	**10**	**5**	**2**
BankUnited Financial Corp.	5/21/2009	100.0%	70.1%	22.6%	21.2%	18.1%	15.8%			81.4%	
Capmark Financial Group Inc.	10/25/2009	100.0%	114.3%	80.4%	61.0%	63.1%	66.8%	56.4%	54.4%	56.3%	53.9%
CIT Group Inc.	11/1/2009	100.0%	136.8%	123.2%	93.0%	100.8%	112.0%	106.8%	109.2%	108.8%	107.7%
Downey Financial Corp.	11/25/2008	100.0%	87.9%	71.1%	62.9%	31.2%	8.2%				
Franklin Bank Corp.	11/12/2008	100.0%		42.0%	33.8%						
Fremont General Corp.	6/18/2008	100.0%	90.3%	95.3%	59.7%	91.5%	91.5%				
Thornburg Mortgage, Inc.	5/1/2009	100.0%	85.0%	24.1%	29.5%	23.1%	2.6%				
Washington Mutual, Inc.	9/26/2008	100.0%	91.3%	84.6%	87.3%	70.6%	68.4%	50.2%	33.0%	54.3%	27.5%
Mean [4]		**100.0%**	**96.5%**	**67.9%**	**56.0%**	**56.9%**	**52.2%**	**71.2%**	**65.5%**	**75.2%**	**63.0%**
Median [4]		**100.0%**	**90.3%**	**75.8%**	**60.4%**	**63.1%**	**66.8%**	**56.4%**	**54.4%**	**68.8%**	**53.9%**
Lehman [5]	9/15/2008	100.0%	101.2%	94.3%	95.8%	93.4%	94.6%	93.2%	92.7%	82.9%	76.0%
Lehman At-Issue Note [6]		100.0%	100.2%	98.3%	99.8%	98.9%	99.3%	99.3%	99.8%	98.6%	84.5%

Notes:

[1] For figures fewer than 30 days prior to bankruptcy filing, the last available trading price within the two trading day window ending on the specified date is used.

[2] For figures 30 days or more prior to bankruptcy filing, the last available trading price within the 30 calendar day window ending on the specified date is used. Bonds without price data are excluded from this analysis.

[3] Figures for companies other than Lehman are calculated as the weighted average of bond value as a percent of the bond value 365 days prior to bankruptcy filing, using up to ten of the company's largest outstanding U.S. Dollar corporate bond issues that were issued at least one year prior to the company's bankruptcy filing. The average is weighted by the issuance amount of each bond issue.

[4] Mean and median exclude Lehman.

[5] Figures for Lehman rely on the company's 25 largest U.S. Dollar debt issuances outstanding as of the bankruptcy filing on September 15, 2008 (see Exhibit 1). Seven of these issuances are excluded from this analysis, as they were issued less than one year prior to the bankruptcy filing.

[6] See Exhibit 2 for a description of the at-issue note.

[7] Advanta Corp., American Home Mortgage Investment Corp., AmTrust Financial Corp., Capital Corp of the West, Colonial BancGroup, Inc., Delta Financial Corp., Guaranty Financial Group Inc., HomeBanc Corp., Imperial Capital Bancorp, Inc., IndyMac Bancorp, Inc., Integrity Bancshares, Inc., Irwin Financial Corp., Luminent Mortgage Capital, Inc., NetBank, Inc., New Century Financial Corp., People's Choice Financial Corp., PFF Bancorp, Inc., ResMAE Mortgage Corp., Security Bank Corp., Silver State Bancorp, Taylor, Bean & Whitaker Mortgage Corp., Temecula Valley Bancorp Inc., UCBH Holdings, Inc., and Vineyard National Bancorp are excluded from this sample, as bond price data for these issuers are not available for the relevant time period.

[8] All prices used in this analysis are sourced from TRACE as reported by FINRA. Use of an alternative source, Bloomberg Generic Pricing offered by Bloomberg L.P., does not materially affect the results.

Sources:

[1] Companies with at least $1 billion in assets that filed for Chapter 7 or Chapter 11 bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData.com.

[2] Bond price data are from the Trade Reporting and Compliance Engine (TRACE) via Bloomberg L.P.

Exhibit 6
Bond Value as a Percentage of Bond Value 12 Months Prior to Bankruptcy Filing
Companies in Other Industries with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009

	Bankruptcy	Days Prior to Bankruptcy Filing [1][2][3]									
Company	**Filing Date**	**365**	**270**	**180**	**90**	**60**	**30**	**15**	**10**	**5**	**2**
AbitibiBowater Inc	4/16/2009	100 0%	109 3%	52 6%	33 2%	34 1%	22 6%	14 2%	26 1%	42 7%	
Aleris International, Inc	2/12/2009	100 0%	105 7%	101 9%	42 9%	12 7%	14 4%	14 0%	16 9%	2 0%	1 2%
Apex Silver Mines Limited	1/12/2009	100 0%	84 6%	55 9%	14 0%	8 9%	1 4%	2 8%	8 4%	2 8%	2 1%
Bally Total Fitness Holding Corp	12/3/2008	100 0%	66 6%	68 0%		22 7%	0 6%		0 1%		
Charter Communications, Inc	3/27/2009	100 0%	102 1%	74 3%	7 8%	7 2%	11 3%				13 4%
Chemtura Corp	3/18/2009	100 0%	102 8%	95 5%	49 4%	53 4%	41 9%	45 3%	32 4%	33 0%	31 3%
Chrysler LLC	4/30/2009	100 0%	85 1%	70 0%	63 3%	64 0%	62 6%	65 4%	65 8%	67 1%	63 4%
Citadel Broadcasting Corp	12/20/2009	100 0%	67 8%				39 5%				
General Motors Corp	6/1/2009	100 0%	71 6%	30 7%	18 2%	16 4%	13 3%	6 2%	8 1%	9 3%	13 6%
Hawaiian Telcom Communications, Inc	12/1/2008	100 0%	80 2%	39 8%	26 4%	20 8%	10 3%	0 1%			
Herbst Gaming, Inc	3/22/2009	100 0%	147 3%	38 7%	0 1%	0 1%	0 7%		1 6%	0 8%	0 7%
Idearc Inc	3/31/2009	100 0%	95 0%	36 8%	11 5%	6 1%	3 1%	3 0%	2 3%	3 1%	5 6%
ION Media Networks, Inc	5/19/2009	100 0%	105 8%	6 7%	0 5%	0 0%	0 0%				
LandAmerica Financial Group, Inc	11/26/2008	100 0%	126 4%	99 0%	84 0%	85 4%	81 7%				
Lear Corp	7/7/2009	100 0%	66 1%	53 2%	26 0%	28 7%	35 0%	26 3%	30 9%	45 7%	45 7%
Linens 'n Things, Inc	5/2/2008	100 0%	68 9%	67 9%	48 3%	42 6%	40 0%	44 7%	44 7%	51 1%	46 3%
Magna Entertainment Corp	3/5/2009	100 0%	73 4%	75 7%	63 7%	52 1%					28 4%
Masonite Corp	3/16/2009	100 0%	95 7%	41 2%	11 6%	12 3%	7 6%		4 0%		
Metaldyne Corp	5/27/2009	100 0%	51 4%	23 9%	34 2%		30 3%				
Movie Gallery, Inc	10/16/2007	100 0%	122 6%	144 4%	62 9%	25 0%	64 5%	57 3%	56 5%	50 4%	50 8%
Nortel Networks Corp / Nortel Networks, Inc	1/14/2009	100 0%	91 2%	91 3%	67 3%	29 7%	17 4%	20 8%		19 4%	22 7%
NTK Holdings, Inc	10/21/2009	100 0%	37 1%	32 9%	15 0%	14 3%	7 7%		7 3%		
Pilgrim's Pride Corp	12/1/2008	100 0%	94 3%	92 3%	89 4%	43 3%	27 5%	10 2%	10 4%	11 8%	4 6%
Quebecor World (USA), Inc	1/21/2008	100 0%	103 9%	98 1%	97 0%	90 4%	88 8%	86 9%	77 4%	70 5%	70 0%
R H Donnelley Corp	5/28/2009	100 0%	74 4%	20 6%	7 0%	11 9%	8 6%	6 4%	3 9%	12 8%	10 5%
Reader's Digest Association, Inc	8/24/2009	100 0%	40 4%	14 2%	16 9%	24 6%	7 5%			13 3%	4 2%
Six Flags, Inc	6/13/2009	100 0%	97 4%	26 1%	24 3%	16 2%	20 8%	23 7%	20 4%	19 7%	15 2%
Smurfit-Stone Container Corp	1/26/2009	100 0%	94 2%	89 8%	53 7%	27 3%	19 8%	19 4%	13 1%	12 5%	11 9%
Spectrum Brands, Inc	2/3/2009	100 0%	103 5%	85 2%	48 7%	24 3%	28 9%	29 1%	29 1%	32 8%	32 8%
Station Casinos, Inc	7/28/2009	100 0%	35 0%	14 9%	23 1%	23 8%	21 6%		14 7%	5 2%	5 2%
TOUSA, Inc	1/29/2008	100 0%	90 4%	65 9%	28 9%	16 0%	18 5%	20 8%	22 6%	18 9%	20 5%
Tribune Company	12/8/2008	100 0%	72 4%	79 7%	66 4%	59 9%	41 9%	21 7%	20 3%	16 5%	17 5%
Trump Entertainment Resorts, Inc	2/17/2009	100 0%	87 0%	63 8%	21 7%	18 9%	19 3%	19 6%	19 9%	19 6%	20 3%
VeraSun Energy Corp	10/31/2008	100 0%	98 0%	90 8%	86 1%	87 1%	59 7%	59 7%	51 7%	46 8%	35 8%
Visteon Corp	5/27/2009	100 0%	85 0%	20 0%	7 9%	8 6%	7 7%	12 8%	7 5%	8 7%	8 7%
WCI Communities, Inc	8/4/2008	100 0%	91 6%	77 0%	71 2%	59 6%	58 5%	44 3%	61 9%		59 3%
Mean [4]		**100.0%**	**86.8%**	**61.1%**	**38 9%**	**30.8%**	**26.7%**	**27.3%**	**24.4%**	**24.7%**	**23.8%**
Median [4]		**100.0%**	**90.8%**	**65.9%**	**31.0%**	**24.1%**	**19 8%**	**20.8%**	**19 9%**	**18.9%**	**17.5%**
Lehman [5]	9/15/2008	100 0%	101 2%	94 3%	95 8%	93 4%	94 6%	93 2%	92 7%	82 9%	76 0%
Lehman At-Issue Note [6]		100 0%	100 2%	98 3%	99 8%	98 9%	99 3%	99 3%	99 8%	98 6%	84 5%

Notes:
[1] For figures fewer than 30 days prior to bankruptcy filing, the last available trading price within the two trading day window ending on the specified date is used
[2] For figures 30 days or more prior to bankruptcy filing, the last available trading price within the 30 calendar day window ending on the specified date is used Bonds without price data are excluded from this analysis
[3] Figures for companies other than Lehman are calculated as the weighted average of bond value as a percent of the bond value 365 days prior to bankruptcy filing, using up to ten of the company's largest outstanding U S Dollar corporate bond issues that were issued at least one year prior to the company's bankruptcy filing The average is weighted by the issuance amount of each bond issue
[4] Mean and median exclude Lehman
[5] Figures for Lehman rely on the company's 25 largest U S Dollar debt issuances outstanding as of the bankruptcy filing on September 15, 2008 (see Exhibit 1) Seven of these issuances are excluded from this analysis, as they were issued less than one year prior to the bankruptcy filing
[6] See Exhibit 2 for a description of the at-issue note
[7] BearingPoint, Inc , Chesapeake Corp , Circuit City Stores, Inc , Cooper-Standard Holdings, Inc , Crescent Resources, LLC, Education Resources Institute, Inc , Extended Stay Inc , FairPoint Communications, Inc , Flying J Inc , Fountainbleu Las Vegas, LLC, Frontier Airlines Holdings, Inc , General Growth Properties, Inc , Hayes Lemmerz International, Inc , LandSource Communities Development LLC, Lyondell Chemical Company, Qimonda North America Corp , SemGroup, L P , SIRVA, Inc , Source Interlink Companies, Inc , Spansion Inc , Tarragon Corp , Tronox Inc , Tropicana Entertainment, LLC, WL Homes LLC, and Woodside Group, LLC are excluded from this sample because bond price data for these issuers are not available for the relevant time period
[8] All prices used in this analysis are sourced from TRACE as reported by FINRA Use of an alternative source, Bloomberg Generic Pricing offered by Bloomberg L P , does not materially affect the results

Sources:
[1] Companies with at least $1 billion in assets that filed for Chapter 7 or Chapter 11 bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData com
[2] Bond price data are from the Trade Reporting and Compliance Engine (TRACE) via Bloomberg L P

Exhibit 7
Debt Issued by Lehman
July 1, 2007 - September 15, 2008

Quarter	Issue Amount: Senior Unsecured		Issue Amount: Subordinated		Total	
Q3 2007	$	10,784,728,230	$	3,500,000,000	$	14,284,728,230
Q4 2007		1,138,585,860		1,500,000,000		2,638,585,860
Q1 2008		5,933,512,690		-		5,933,512,690
Q2 2008		2,922,104,790		2,000,000,000		4,922,104,790
Q3 2008		103,984,020		-		103,984,020
Total	$	20,882,915,590	$	7,000,000,000	$	27,882,915,590

Notes:

[1] Debt is limited to new debt issued by Lehman in U.S. dollars between July 1, 2007 and September 15, 2008, according to Bloomberg.

[2] Senior unsecured is the sum of all senior unsecured, senior unsubordinated, unsecured, senior note, and unsubordinated debt.

[3] Subordinated is the sum of all subordinated and junior subordinated debt.

[4] Lehman also issued $230 million of debt in the form of notes. Notes are defined as "a legal document that is evidence of a debt and that requires payment within a specific time period."

[5] Thirty-eight of the 678 debt securities issued by Lehman do not have issue amount available on Bloomberg. I exclude these notes from this analysis.

Source: Bloomberg L.P.

Exhibit 8

Market Capitalization as a Percentage of Market Capitalization 12 Months Prior to Bankruptcy Filing

Banking and Financial Companies with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009

Company	Bankruptcy Filing Date	Days Prior to Bankruptcy Filing [1]										Market Cap 12 Months Prior to Bankruptcy Filing ($ millions)
		365	270	180	90	60	30	15	10	5	2	
Advanta Corp	11/8/2009	100 0%	26 5%	43 2%	24 9%	23 9%	23 9%	18 8%	18 3%	14 9%	16 8%	$ 28 3
American Home Mortgage Investment Corp	8/6/2007	100 0%	95 6%	107 5%	71 8%	71 0%	59 3%	43 2%	35 3%	5 0%	2 3%	1,610 0
BankUnited Financial Corp	5/21/2009	100 0%	50 6%	9 4%	6 6%	6 9%	8 2%	16 8%	22 6%	24 2%	22 0%	112 0
Capital Corp of the West	5/11/2009	100 0%	72 2%	39 8%	1 7%	0 2%	0 4%	0 6%	0 6%	0 5%	0 8%	55 4
CIT Group Inc	11/1/2009	100 0%	94 0%	92 8%	35 0%	48 6%	40 1%	38 4%	38 4%	32 9%	24 7%	1,144 4
Colonial BancGroup, Inc	8/25/2009	100 0%	40 7%	8 1%	22 6%	11 4%	11 7%	8 6%	6 7%	1 4%	1 1%	1,247 1
Delta Financial Corp	12/17/2007	100 0%	86 3%	123 2%	52 4%	51 8%	15 1%	18 2%	2 0%	1 3%	1 1%	239 2
Downey Financial Corp	11/25/2008	100 0%	78 8%	22 3%	6 0%	6 1%	4 2%	4 6%	1 2%	0 6%	0 6%	926 6
Franklin Bank Corp	11/12/2008	100 0%	55 6%	13 9%	8 8%	5 8%	3 8%	3 4%	3 1%	3 4%	3 4%	191 3
Fremont General Corp	6/18/2008	100 0%	48 5%	33 7%	3 7%	1 0%	1 0%	0 8%	0 7%	0 6%	0 6%	957 7
Guaranty Financial Group Inc	8/27/2009	100 0%	139 7%	22 2%	16 6%	13 5%	6 7%	20 7%	20 7%	15 0%	7 7%	210 5
HomeBanc Corp	8/9/2007	100 0%	60 2%	52 4%	24 6%	23 6%	15 2%	12 1%	10 2%	4 3%	1 0%	362 1
Imperial Capital Bancorp, Inc	12/18/2009	100 0%	15 1%	12 1%	9 1%	17 8%	2 1%	2 7%	3 0%	3 0%	2 4%	18 0
IndyMac Bancorp, Inc	7/31/2008	100 0%	60 3%	56 1%	21 0%	13 5%	4 6%	0 5%	1 0%	0 7%	1 1%	1,415 8
Integrity Bancshares, Inc	10/10/2008	100 0%	53 0%	15 6%	7 2%	6 0%	0 5%	0 1%	0 0%	0 1%	0 1%	64 7
Irwin Financial Corp	9/18/2009	100 0%	48 8%	46 9%	14 7%	17 8%	27 8%	23 1%	22 6%	21 7%	11 9%	126 7
Luminent Mortgage Capital, Inc	9/5/2008	100 0%	87 2%	42 1%	17 3%	8 9%	9 8%	6 0%	6 8%	4 9%	6 0%	57 6
NetBank, Inc	9/28/2007	100 0%	76 1%	41 4%	5 8%	4 3%	2 1%	1 5%	1 5%	1 5%	1 4%	282 9
New Century Financial Corp	4/2/2007	100 0%	101 4%	95 6%	77 4%	73 9%	35 9%	5 7%	4 9%	2 7%	2 6%	2,263 3
PFF Bancorp, Inc	12/5/2008	100 0%	73 5%	14 2%	13 6%	12 5%	12 3%	6 1%	0 1%	0 1%	0 1%	208 1
Security Bank Corp	7/31/2009	100 0%	40 4%	15 3%	11 1%	10 5%	8 8%	6 1%	6 1%	4 6%	4 6%	122 0
Silver State Bancorp	1/6/2009	100 0%	62 5%	11 3%	0 4%	0 2%	0 1%	0 0%	0 1%	0 0%	0 1%	207 6
Temecula Valley Bancorp Inc	11/6/2009	100 0%	22 2%	13 6%	0 3%	0 3%	0 5%	0 3%	0 3%	0 3%	0 3%	37 5
Thornburg Mortgage, Inc	5/1/2009	100 0%	29 0%	17 9%	13 5%	7 2%	2 3%	1 6%	1 6%	1 5%	2 2%	306 9
UCBH Holdings, Inc	11/24/2009	100 0%	42 2%	41 4%	37 9%	25 0%	24 2%	23 1%	23 1%	2 4%	1 9%	438 7
Vineyard National Bancorp	7/21/2009	100 0%	28 0%	6 9%	5 9%	4 5%	3 4%	3 8%	3 8%	4 5%	4 0%	29 4
Washington Mutual, Inc	9/26/2008	100 0%	38 6%	29 4%	16 8%	22 2%	19 9%	16 0%	13 1%	24 0%	12 7%	30,245 3
Mean [2]		**100.0%**	**60.3%**	**38 1%**	**19.5%**	**18.1%**	**12.7%**	**10.5%**	**9.2%**	**6.5%**	**4.9%**	
Median [2]		**100.0%**	**55.6%**	**29.4%**	**13.6%**	**11.4%**	**8.2%**	**6.0%**	**3 8%**	**2.7%**	**2.2%**	
Lehman	9/15/2008	100 0%	104 9%	71 3%	56 0%	41 9%	36 2%	36 0%	36 3%	16 2%	8 2%	$ 31,026 0

Notes:

[1] If the indicated number of days prior to bankruptcy falls on a non-trading day, data from the previous trading day are used

[2] Mean and median exclude Lehman

[3] Stock price and shares outstanding data used to calculate market capitalization are adjusted for stock splits and dividends

[4] Banking and financial companies are those that have an industry classification of "Banking & Finance" as classified by BankruptcyData com

[5] AmTrust Financial Corp , Capmark Financial Group Inc , People's Choice Financial Corp , ResMAE Mortgage Corp and Taylor, Bean & Whitaker Mortgage Corp were not publicly traded during the relevant period and are excluded from this analysis

Sources:

[1] Bloomberg L P

[2] Companies with at least $1 billion in assets that filed for Chapter 7 or Chapter 11 bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData com

Exhibit 9

Market Capitalization as a Percentage of Market Capitalization 12 Months Prior to Bankruptcy Filing

Companies in Other Industries with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009

Company	Bankruptcy Filing Date	Days Prior to Bankruptcy Filing [1] 365	270	180	90	60	30	15	10	5	2	Market Cap 12 Months Prior to Bankruptcy Filing ($ millions)
AbitibiBowater Inc	4/16/2009	100 0%	65 4%	14 8%	4 9%	4 7%	5 7%	4 3%	4 1%	4 0%	4 0%	$ 663 1
Apex Silver Mines Limited	1/12/2009	100 0%	69 9%	32 2%	10 7%	5 3%	4 5%	8 2%	5 5%	4 5%	4 5%	927 6
BearingPoint, Inc	2/18/2009	100 0%	74 7%	60 8%	2 2%	1 5%	2 2%	1 4%	0 8%	0 5%	0 5%	405 3
Charter Communications, Inc	3/27/2009	100 0%	116 9%	93 4%	12 8%	8 7%	2 6%	2 5%	2 8%	5 5%	3 8%	366 4
Chemtura Corp	3/18/2009	100 0%	115 8%	81 8%	17 7%	14 5%	9 6%	4 0%	3 8%	2 4%	1 4%	1,741 7
Chesapeake Corp	12/29/2008	100 0%	92 6%	39 5%	12 5%	0 9%	0 5%	0 6%	1 0%	0 9%	1 4%	109 8
Circuit City Stores, Inc	11/10/2008	100 0%	76 9%	77 8%	27 8%	26 9%	5 7%	3 8%	4 0%	4 2%	3 8%	1,091 9
Citadel Broadcasting Corp	12/20/2009	100 0%	30 4%	18 4%	25 3%	72 8%	23 1%	21 4%	17 5%	6 0%	6 8%	62 1
FairPoint Communications, Inc	10/26/2009	100 0%	66 9%	28 5%	14 2%	22 3%	16 0%	10 4%	9 7%	9 7%	9 0%	371 3
Frontier Airlines Holdings, Inc	4/10/2008	100 0%	96 0%	109 6%	58 3%	52 4%	43 6%	44 1%	41 8%	35 9%	32 6%	221 7
General Growth Properties, Inc	4/16/2009	100 0%	83 2%	16 9%	3 7%	1 8%	2 0%	2 1%	3 1%	3 1%	3 4%	9,660 1
General Motors Corp	6/1/2009	100 0%	62 5%	30 9%	12 5%	13 2%	11 4%	6 9%	9 0%	7 3%	4 7%	9,681 2
Hayes Lemmerz International, Inc	5/11/2009	100 0%	67 2%	14 8%	2 5%	1 0%	5 5%	4 5%	3 8%	5 6%	5 8%	403 3
Idearc Inc	3/31/2009	100 0%	47 8%	27 7%	2 4%	1 8%	1 4%	1 5%	1 7%	1 6%	1 7%	533 9
LandAmerica Financial Group, Inc	11/26/2008	100 0%	154 6%	127 3%	76 3%	101 3%	33 4%	28 6%	23 0%	18 6%	2 2%	361 0
Lear Corp	7/7/2009	100 0%	46 1%	12 0%	6 9%	18 9%	9 4%	6 7%	3 0%	1 7%	1 7%	1,022 7
Magna Entertainment Corp	3/5/2009	100 0%	56 2%	50 9%	7 3%	5 6%	4 5%	3 5%	1 7%	2 4%	2 0%	42 5
Movie Gallery, Inc	10/16/2007	100 0%	136 0%	179 3%	26 6%	12 0%	23 5%	20 8%	20 5%	12 2%	12 1%	70 7
Nortel Networks, Inc	1/14/2009	100 0%	59 7%	64 1%	14 7%	5 1%	3 0%	2 5%	2 7%	3 6%	3 8%	5,429 0
Pilgrim's Pride Corp	12/1/2008	100 0%	92 0%	101 6%	57 0%	12 9%	4 7%	1 1%	1 3%	4 4%	4 9%	1,727 6
Quebecor World (USA), Inc	1/21/2008	100 0%	115 4%	104 8%	75 3%	21 0%	16 8%	14 7%	7 6%	1 6%	2 7%	1,012 9
R H Donnelley Corp	5/28/2009	100 0%	74 1%	10 9%	3 4%	4 5%	2 6%	2 9%	3 4%	3 0%	3 2%	348 1
SIRVA, Inc	2/5/2008	100 0%	72 3%	28 0%	13 2%	5 5%	4 2%	3 5%	3 5%	3 5%	4 0%	235 2
Six Flags, Inc	6/13/2009	100 0%	51 0%	15 5%	8 3%	9 8%	17 6%	16 0%	16 0%	14 5%	13 7%	189 4
Smurfit-Stone Container Corp	1/26/2009	100 0%	64 8%	60 0%	11 0%	5 9%	3 0%	4 3%	0 7%	0 5%	0 7%	2,255 7
Source Interlink Companies, Inc	4/27/2009	100 0%	117 2%	23 4%	8 3%	8 3%	17 9%	10 2%	15 5%	13 0%	13 1%	75 9
Spansion Inc	3/1/2009	100 0%	131 5%	99 3%	8 7%	8 2%	2 9%	2 6%	2 2%	2 6%	2 2%	372 2
Spectrum Brands, Inc	2/3/2009	100 0%	94 8%	56 2%	13 8%	2 2%	1 9%	1 2%	0 8%	1 0%	1 0%	245 0
Tarragon Corp	1/12/2009	100 0%	159 5%	69 9%	10 1%	3 9%	8 1%	5 4%	6 1%	6 7%	6 7%	43 1
TOUSA, Inc	1/29/2008	100 0%	40 8%	31 1%	7 9%	1 2%	1 4%	1 7%	1 4%	1 5%	1 5%	549 4
Tronox Inc	1/12/2009	100 0%	45 0%	15 5%	1 8%	1 9%	0 5%	0 3%	0 5%	0 7%	0 7%	137 4
Trump Entertainment Resorts, Inc	2/17/2009	100 0%	65 5%	29 5%	10 0%	5 1%	5 6%	5 8%	5 4%	5 6%	5 6%	130 3
VeraSun Energy Corp	10/31/2008	100 0%	78 8%	90 8%	84 4%	75 8%	37 6%	26 3%	23 2%	15 1%	6 4%	1,194 4
Visteon Corp	5/27/2009	100 0%	78 2%	18 2%	2 9%	4 2%	4 7%	7 0%	6 9%	6 7%	6 7%	537 7
WCI Communities, Inc	8/4/2008	100 0%	71 3%	81 7%	52 3%	31 4%	23 1%	23 1%	22 8%	20 4%	21 3%	250 0
Mean [2]		**100.0%**	**82.0%**	**54.8%**	**20.2%**	**16.4%**	**10.3%**	**8.7%**	**7.9%**	**6.6%**	**5.7%**	
Median [2]		**100.0%**	**74.1%**	**39.5%**	**11.0%**	**5.9%**	**5.5%**	**4.3%**	**3.8%**	**4.2%**	**3.8%**	
Lehman	9/15/2008	100 0%	104 9%	71 3%	56 0%	41 9%	36 2%	36 0%	36 3%	16 2%	8 2%	$ 31,026 0

Notes:

[1] If the indicated number of days prior to bankruptcy falls on a non-trading day, data from the previous trading day are used

[2] Mean and median exclude Lehman

[3] Stock price and shares outstanding data used to calculate market capitalization are adjusted for stock splits and dividends

[4] Companies in Other Industries are those that have an industry classification other than "Banking & Finance" by BankruptcyData com

[5] Aleris International, Inc , Bally Total Fitness Holding Corp , Chrysler LLC, Cooper-Standard Holdings, Inc , Crescent Resources, LLC, Education Resources Institute, Inc , Extended Stay Inc , Flying J Inc , Fountainbleu Las Vegas, LLC, General Motors Corp , Hawaiian Telcom Communications, Inc , Herbst Gaming, Inc , Ion Media Networks, Inc , LandSource Communities Development LLC, Linens 'n Things, Inc , Lyondell Chemical Company, Masonite Corp , Metaldyne Corp , NTK Holdings, Inc , Qimonda North America Corp , Reader's Digest Association, Inc , SemGroup, L P , Station Casinos, Inc , Tribune Company, Tropicana Entertainment, LLC, WL Homes LLC, and Woodside Group, LLC were not publicly traded during the relevant period and are excluded from this analysis

Sources:

[1] Bloomberg L P

[2] Spectrum Brands, Inc , Form 10-K for the fiscal year ended September 30, 2007

[3] Spectrum Brands, Inc , Form 10-Q for the quarterly period ended December 30, 2007

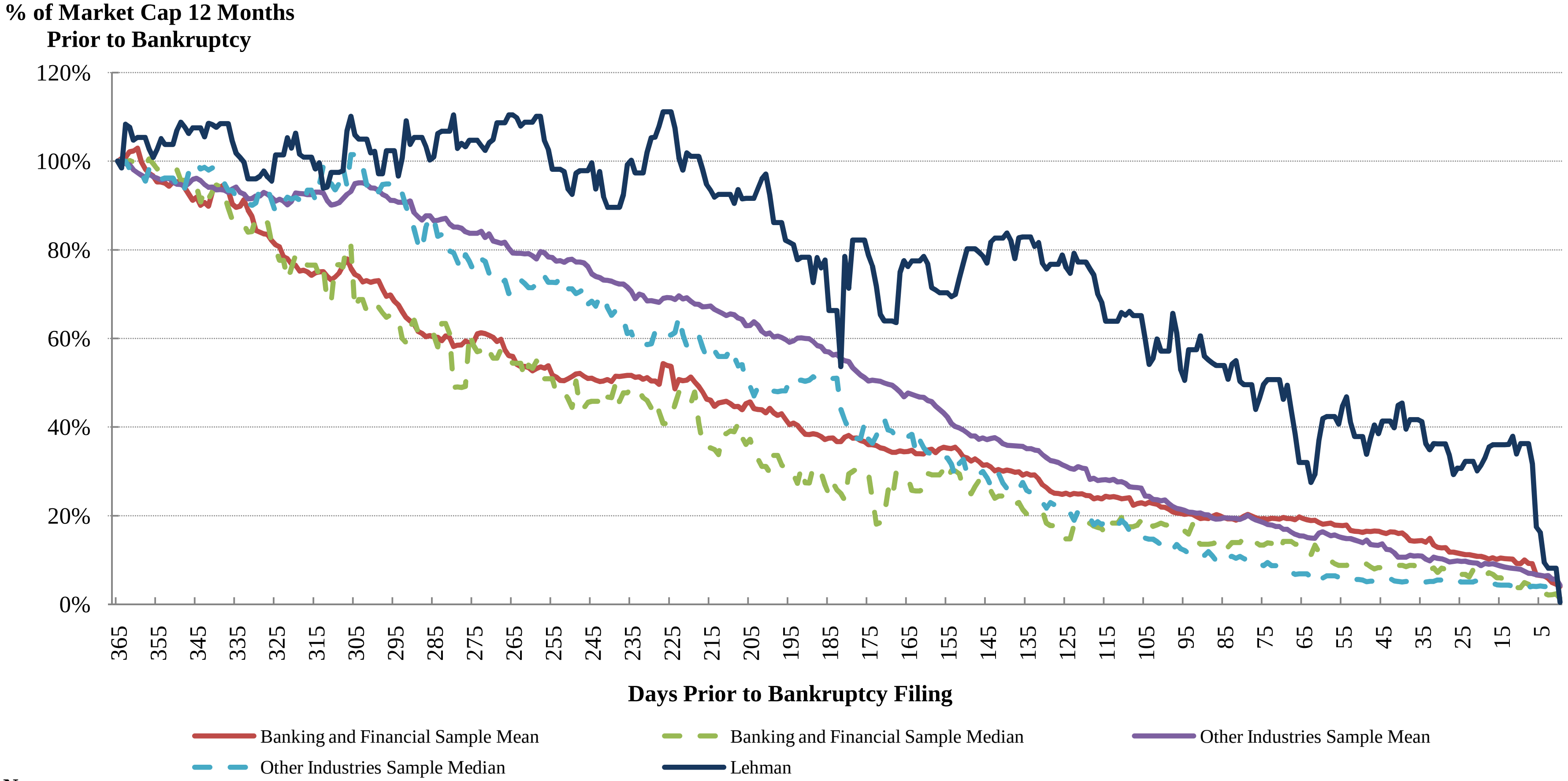
[4] Spectrum Brands, Inc , Form 10-Q for the quarterly period ended March 30, 2008

[5] Companies with at least $1 billion in assets that filed for Chapter 7 or Chapter 11 bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData com

Exhibit 10

Market Capitalization as a Percentage of Market Capitalization 12 Months Prior to Bankruptcy Filing

Companies with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009



Notes:

[1] If the indicated number of days prior to bankruptcy filing falls on a non-trading day, data from the previous trading day is used.

[2] Sample means and medians exclude Lehman.

[3] Stock price and shares outstanding data used to calculate market capitalization are adjusted for stock splits and dividends.

[4] The banking and financial sample is comprised of companies that have an industry classification of "Banking & Finance" as classified by BankruptcyData.com.

Sources:

[1] Bloomberg L.P.

[2] Companies with at least $1 billion in assets that filed for Chapter 7 or Chapter 11 bankruptcy between January 1, 2007 and December 31, 2009 are identified using data from BankruptcyData.com.

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Exhibit 11
Market Capitalization as a Percentage of Market Capitalization 12 Months Prior to Lehman's Bankruptcy Filing
Comparable Financial Companies

	Days Prior to Lehman Brothers Bankruptcy Filing, September 15, 2008 [1]										Market Cap 12 Months Prior to Bankruptcy Filing ($ millions)
Company	**365**	**270**	**180**	**90**	**60**	**30**	**15**	**10**	**5**	**2**	
Investment Banks											
Bear Stearns Companies, Inc. [2]	100.0%	77.8%									$ 13,517.6
Goldman Sachs Group, Inc.	100.0%	104.4%	85 5%	92.0%	92.8%	83.7%	84.1%	83.7%	80.8%	79.1%	75,050.8
Merrill Lynch & Co., Inc. [3]	100.0%	72.9%	63.4%	59.2%	48.0%	64.7%	69.8%	65.8%	57.4%	42.0%	60,815.2
Morgan Stanley	100.0%	78.7%	69.7%	65.6%	62.5%	66.7%	66.6%	67.4%	63.5%	60.7%	65,480.9
Financial Institutions [4]											
American International Group, Inc.	100.0%	86.7%	64.4%	52.3%	40.4%	37.6%	35.2%	36.9%	28.9%	20.1%	162,694.8
Bank of America Corp.	100.0%	84.1%	79.7%	61.8%	56.0%	66.4%	67.4%	71.1%	71.5%	74.5%	200,612.8
Citigroup Inc.	100.0%	65.0%	46 9%	49.7%	43.6%	46.0%	47.1%	47.3%	46.3%	44.5%	216,486.1
JPMorgan Chase & Co.	100.0%	95.2%	95 2%	90.4%	94.3%	88.0%	89.0%	91.6%	91.1%	95.2%	144,357.0
Wachovia Corp. [5]	100.0%	81.7%	61 1%	41.0%	32.1%	37.2%	38.1%	40.2%	36.2%	34.2%	89,183.7
Wells Fargo & Co. [5]	100.0%	86.3%	86 3%	72.5%	79.4%	86.0%	87.5%	90.2%	91.6%	99.1%	110,071.5
Mean[6]	**100.0%**	**83.3%**	**72.5%**	**64.9%**	**61.0%**	**64.0%**	**65.0%**	**66.0%**	**63.0%**	**61.0%**	
Median[6]	**100.0%**	**82.9%**	**69.7%**	**61.8%**	**56.0%**	**66.4%**	**67.4%**	**67.4%**	**63.5%**	**60.7%**	
Lehman	100.0%	104.9%	71 3%	56.0%	41.9%	36.2%	36.0%	36.3%	16.2%	8.2%	$ 31,026.0

Notes:
[1] If the indicated number of days prior to bankruptcy falls on a non-trading day, data from the previous day are used.
[2] JPMorgan Chase & Co. announced the acquisition of The Bear Stearns Companies, Inc. on March 16, 2008.
[3] Bank of America Corp. announced the acquisition of Merrill Lynch & Co., Inc. on September 15, 2008.
[4] Financial Institutions consist of financial entities that received at least $20 billion in TARP funds.
[5] Wachovia Corp. did not receive any TARP funds. Wells Fargo & Co. announced the acquisition of Wachovia on October 3, 2008.
[6] Mean and median exclude Lehman.
[7] Stock price and shares outstanding data used to calculate market capitalization are adjusted for stock splits and dividends.

Sources:
[1] Bloomberg L.P.
[2] Capital IQ.
[3] Ericson, M., Elaine He, and Amy Schoenfeld, "Tracking the $700 Billion Bailout," The New York Times, was used to identify TARP participants.

Exhibit 12
Equity Issued by Lehman
July 1, 2007 - September 15, 2008

Issue Date		Size
Common Stock		
November 20, 2007	$	6,509,130,000
June 9, 2008		4,004,000,000
August 15, 2008		810,000,000
Total Common Stock	**$**	**11,323,130,000**
Preferred Securities		
July 24, 2007	$	10,000,012
July 24, 2007		10,000,009
August 7, 2007		40,358,342
August 24, 2007		63,000,038
September 10, 2007		60,000,005
September 27, 2007		20,000,001
October 1, 2007		10,000,075
October 12, 2007		65,000,000
January 14, 2008		500,007,600
January 30, 2008		35,630,587
February 12, 2008		1,897,500,000
March 5, 2008		57,995,488
April 4, 2008		4,000,000,000
June 12, 2008		2,000,000,000
Total Preferred Securities	**$**	**8,769,492,157**
Total	**$**	**20,092,622,157**

Notes:

[1] Size of common stock reflects Capital IQ's reported size, which represents the actual stock price times the number of shares as listed in Lehman's SEC filings.

[2] Total common stock is calculated as the sum of the size of all Lehman common stock offerings between July 1, 2007 and September 15, 2008.

[3] The November 20, 2007 and the August 15, 2008 common stock issuances relate to the registration shares of authorized and unissued or issued common stock to be distributed from time to time under the Lehman's 2005 Stock Incentive Plan.

[4] Preferred securities are limited to new debt issued by Lehman in U.S. dollars between July 1, 2007 to September 15, 2008 according to Bloomberg. All of the preferred securities listed are "preferreds issued after the Securities Act of 1931."

[5] Size of preferred securities is calculated as the number of shares, recorded as issue amount, times par value.

[6] Seven of the twenty-one preferred securities issued by Lehman do not have issue amount available on Bloomberg. I exclude these securities from this analysis.

Sources:

[1] Capital IQ.

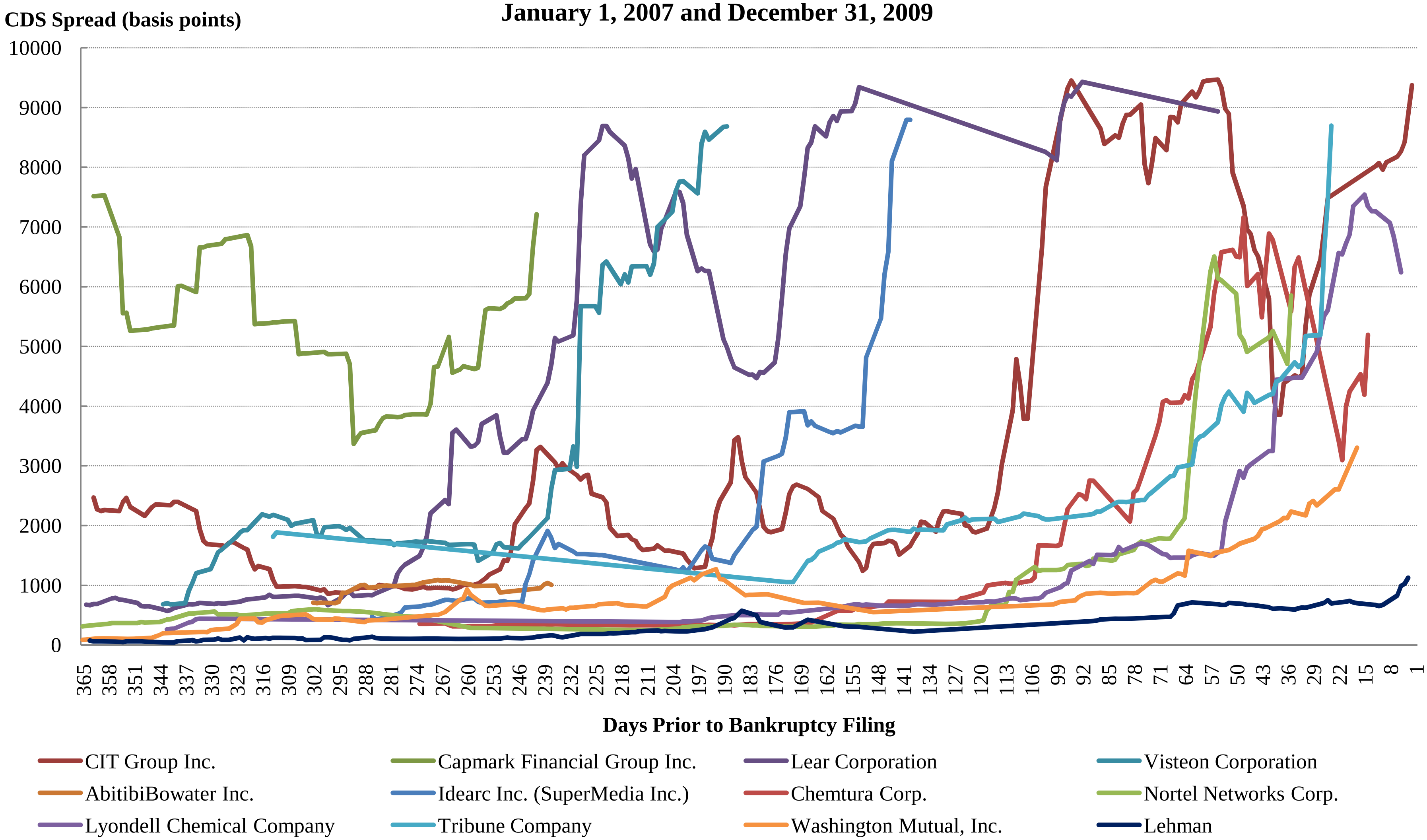
[2] Lehman Brothers Holdings Inc., Form S-8, November 20, 2007.

[3] Lehman Brothers Holdings Inc., Form 424(b)(2), June 9, 2008.

[4] Lehman Brothers Holdings Inc., Form S-8, August 15, 2008.

[5] Bloomberg L.P.

Exhibit 13
One-Year Credit Default Swap Spreads for Senior Debt
Publicly Traded Companies with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009



Note: Fifty-one of the 62 publicly-traded companies did not have one-year credit default swap spread data available.

Source: Bloomberg L.P.

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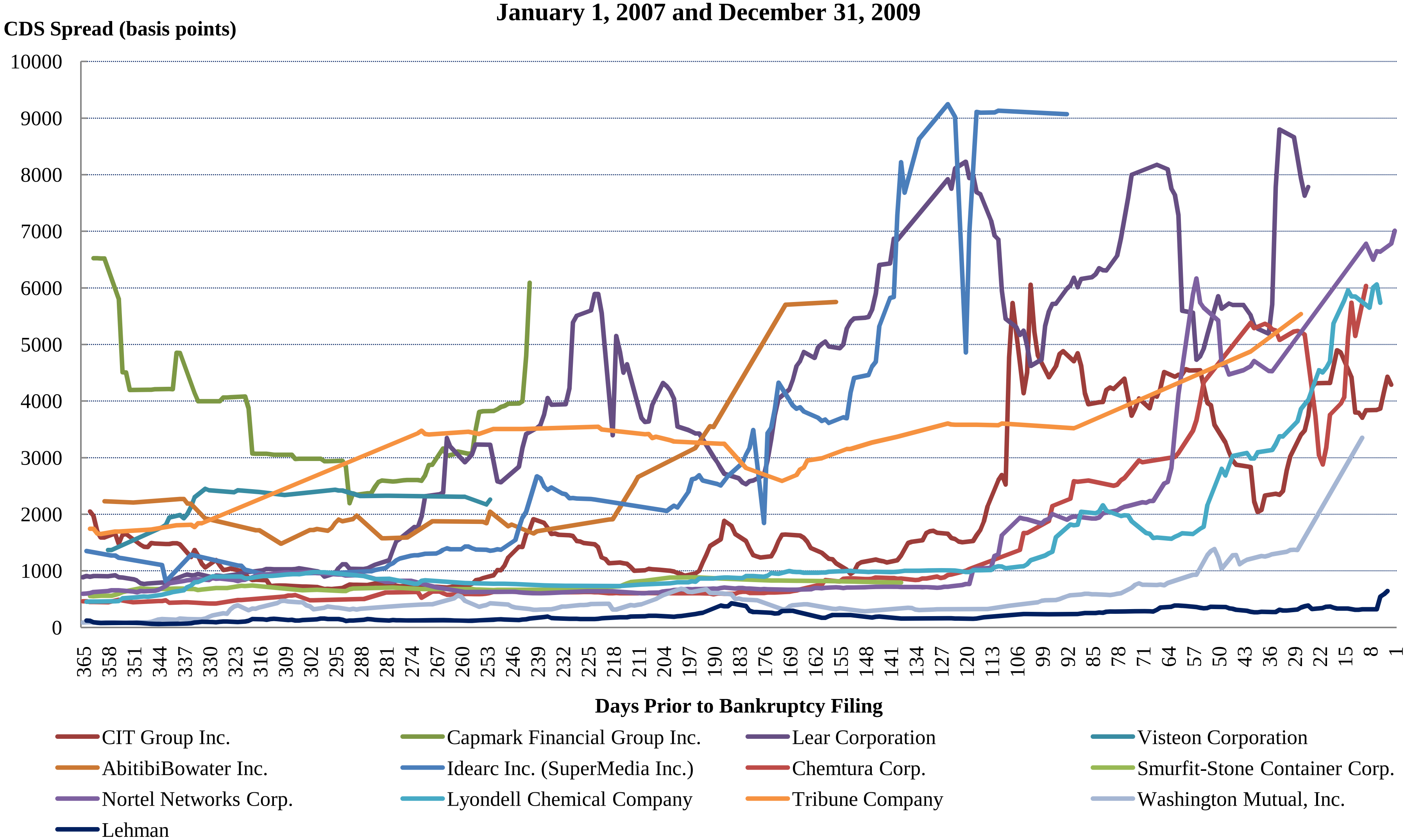
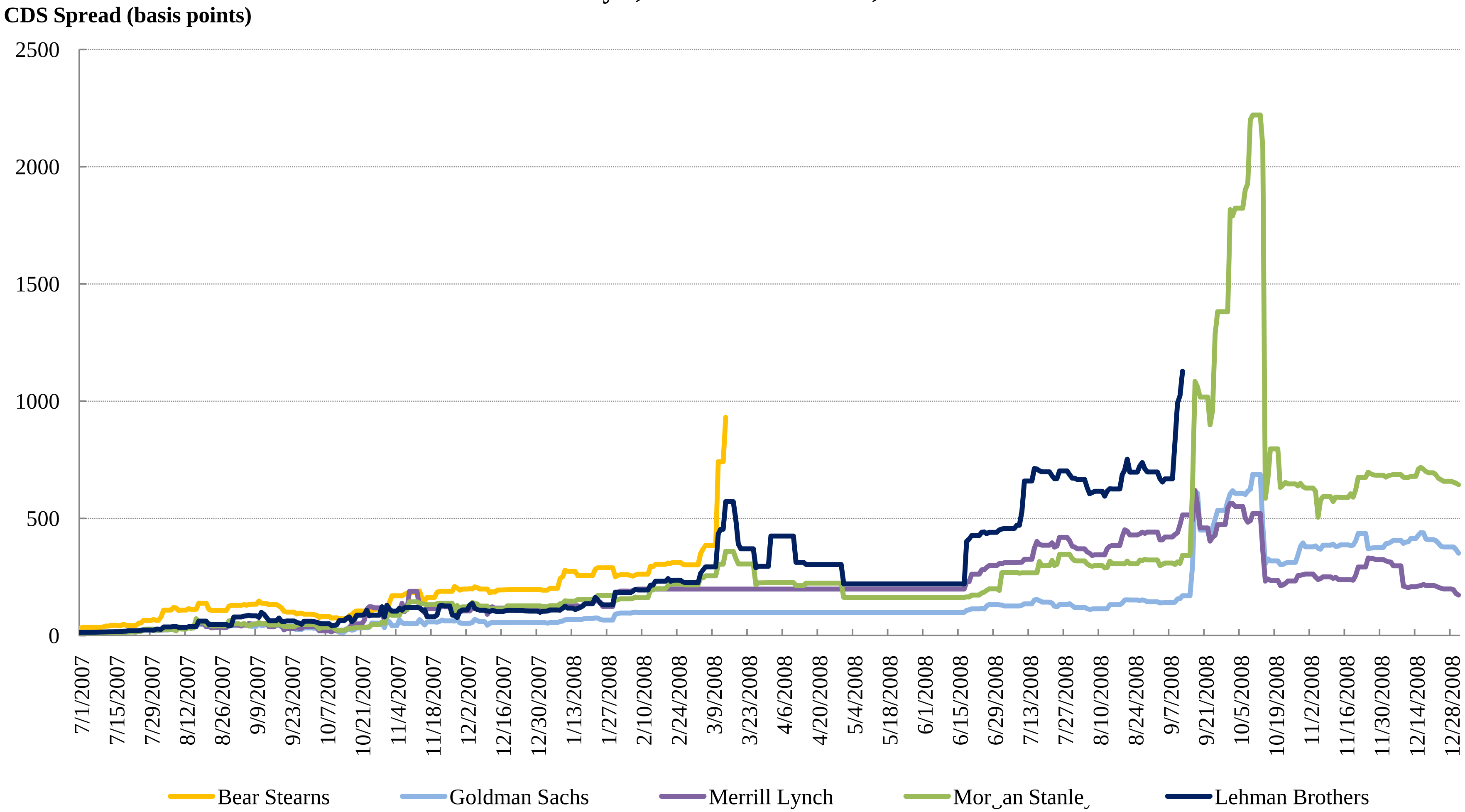
Exhibit 14
Five-Year Credit Default Swap Spreads for Senior Debt
Publicly Traded Companies with at Least $1 Billion in Assets that Filed for Bankruptcy between January 1, 2007 and December 31, 2009



Note: Fifty of the 62 publicly-traded companies did not have five-year credit default swap data available.

Source: Bloomberg L.P.

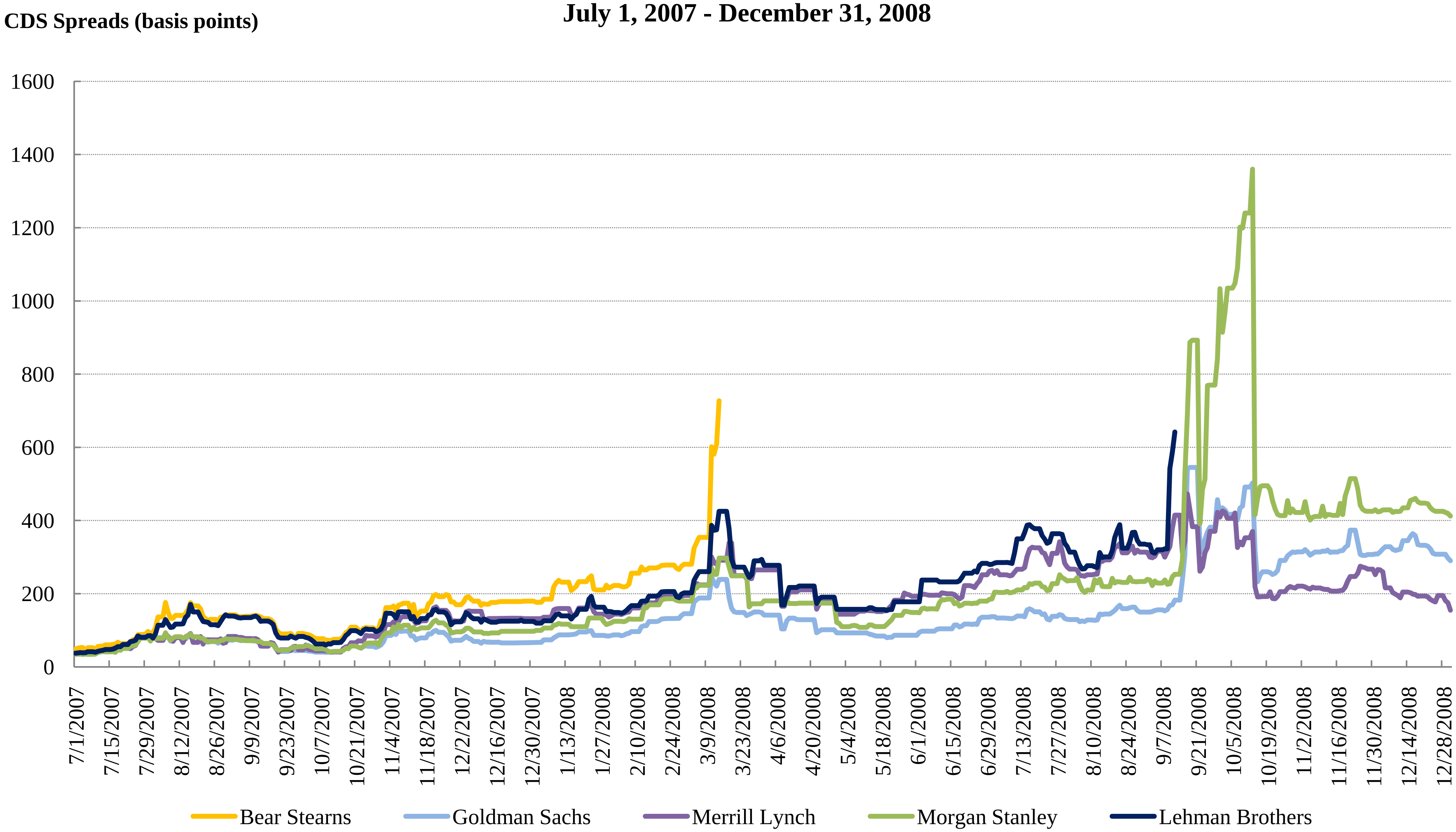
Exhibit 15
One-Year Credit Default Swap Spreads for Senior Debt
Comparable Financial Companies - Investment Banks
July 1, 2007 - December 31, 2008



Note: JPMorgan Chase & Co. announced the acquisition of The Bear Stearns Companies, Inc. on March 16, 2008.

Sources:
[1] Bloomberg L.P.
[2] Capital IQ.

Exhibit 16
Five-Year Credit Default Swap Spreads for Senior Debt
Comparable Financial Companies - Investment Banks
July 1, 2007 - December 31, 2008



Note: JPMorgan Chase & Co. announced the acquisition of The Bear Stearns Companies, Inc. on March 16, 2008.

Sources:
[1] Bloomberg L.P.
[2] Capital IQ.

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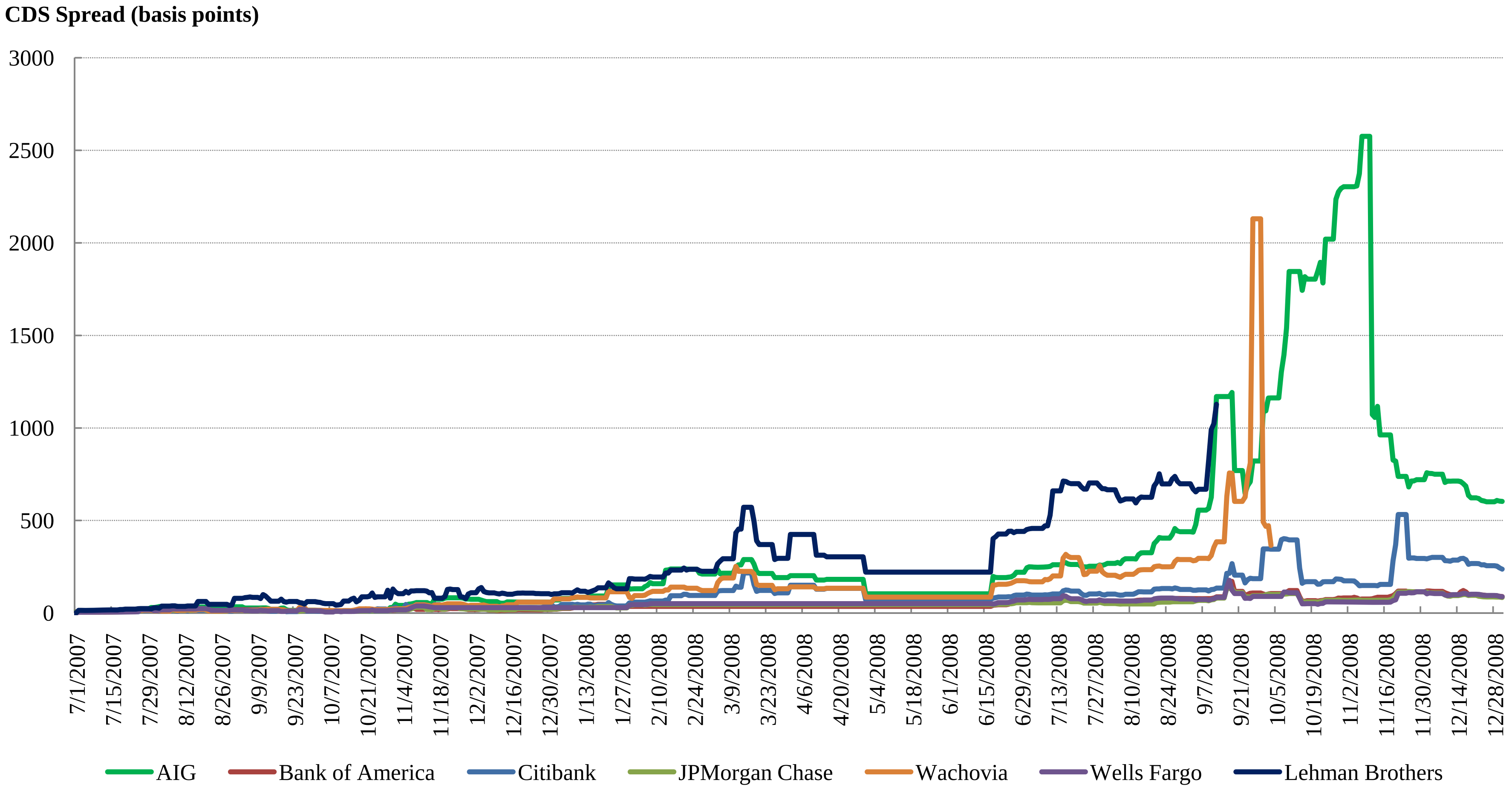
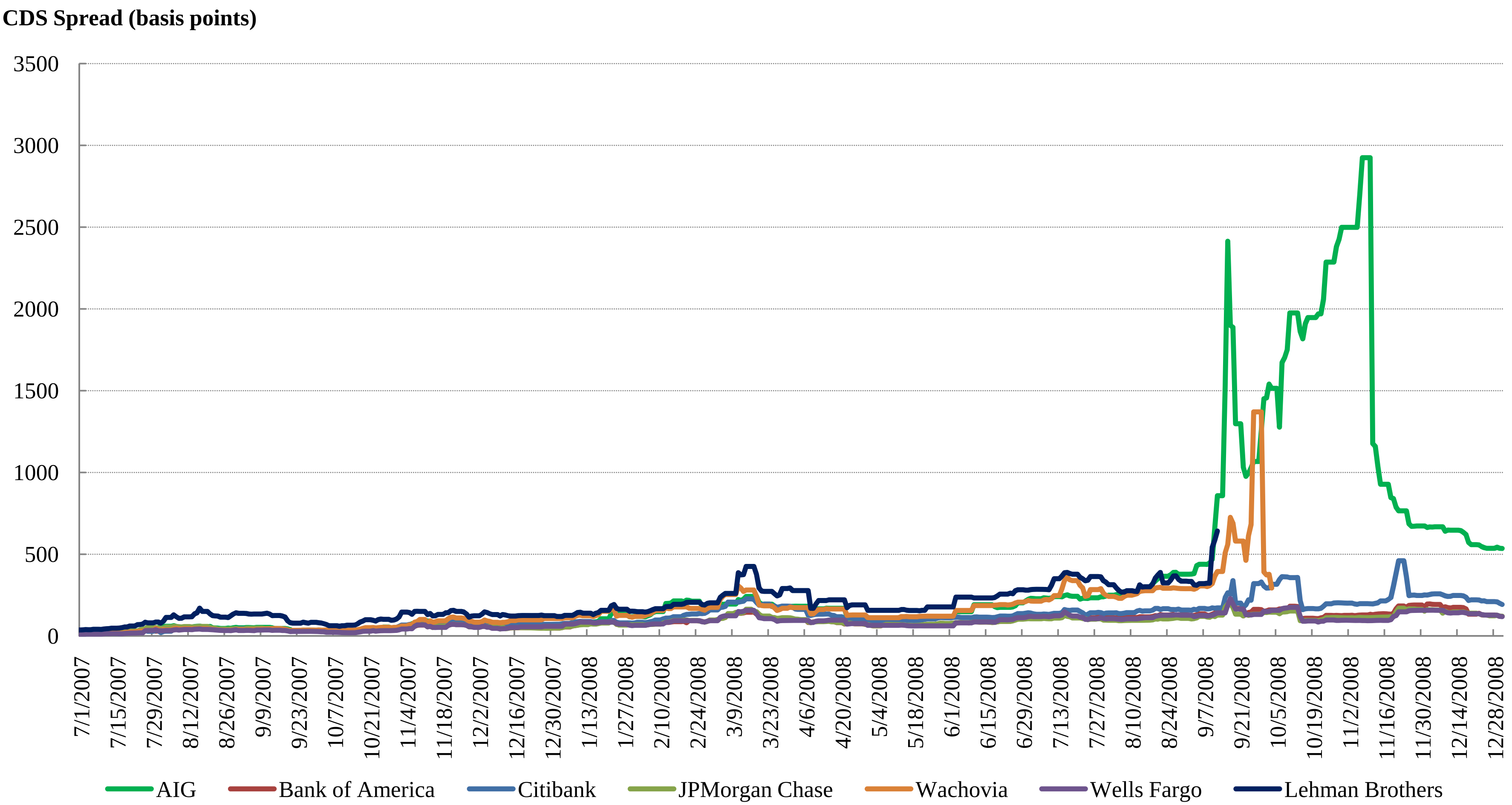
Exhibit 17
One-Year Credit Default Swap Spreads for Senior Debt
Comparable Financial Companies - Financial Institutions
July 1, 2007 - December 31, 2008



Note: Wells Fargo & Company announced the acquisition of Wachovia Corporation on October 3, 2008.

Sources:
[1] Bloomberg L.P.
[2] Capital IQ.

Exhibit 18
Five-Year Credit Default Swap Spreads for Senior Debt
Comparable Financial Companies - Financial Institutions
July 1, 2007 - December 31, 2008



Note: Wells Fargo & Company announced the acquisition of Wachovia Corporation on October 3, 2008.

Sources:
[1] Bloomberg L.P.
[2] Capital IQ.

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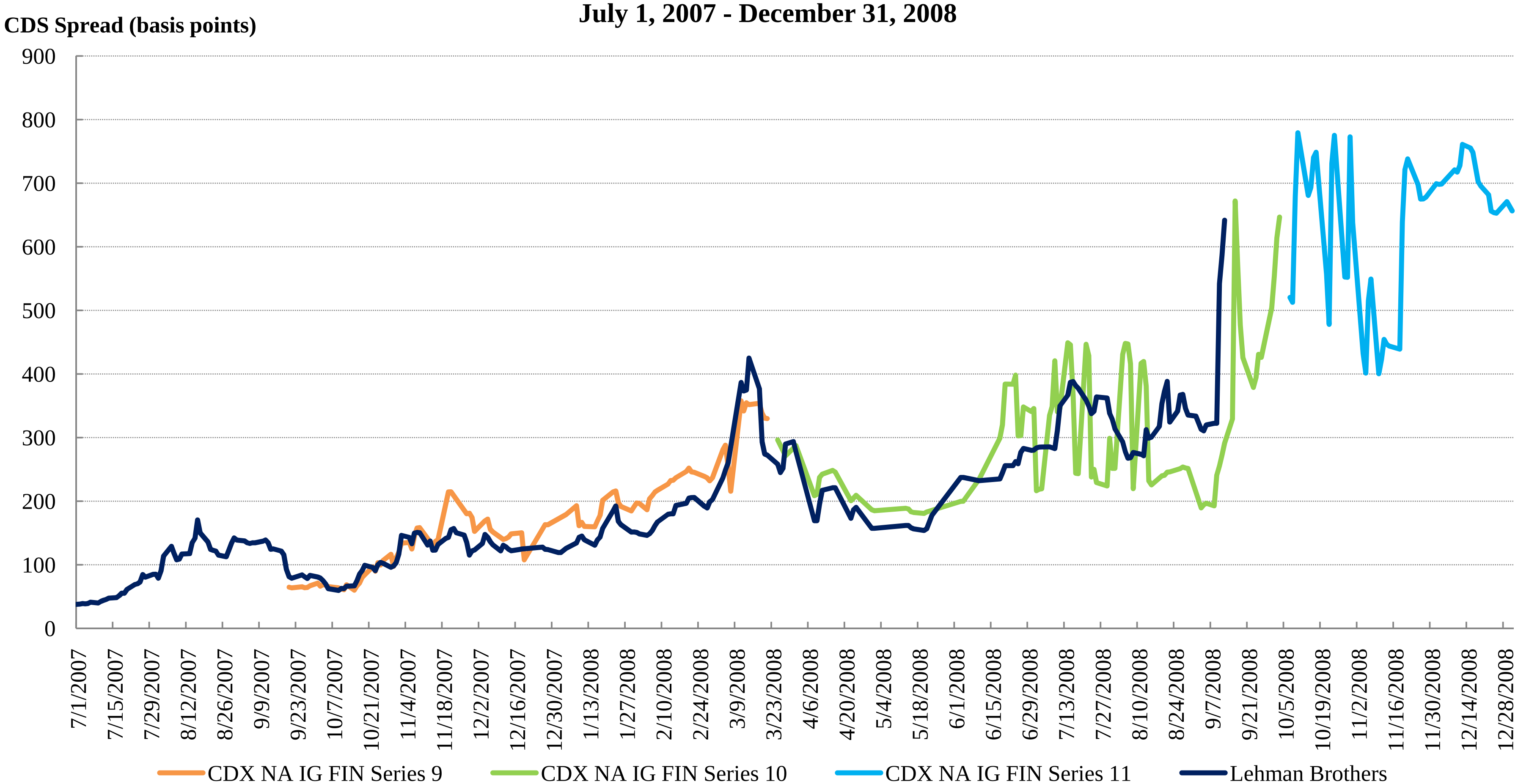
Exhibit 19
Five-Year Credit Default Swap Spreads
Lehman and the CDX North American Investment Grade Financial CDS Index
July 1, 2007 - December 31, 2008



Notes:
[1] The Markit CDX North American Investment Grade Index is comprised of 125 investment grade entities. The composition of the Markit CDX Index is determined by a consortium of 16 member banks. The Markit CDX Index is updated every six months in March and September. Series 9 was updated on September 20, 2007, Series 10 was updated on March 25, 2008, and Series 11 was updated on October 6, 2008.
[2] The CDX FIN Index is the sub-index of financial entities. Series 9 was the first series to identify a financial sub-index. The CDX FIN Indices are simple averages of the spreads of the financial companies included in each index.

Source: Bloomberg L.P.

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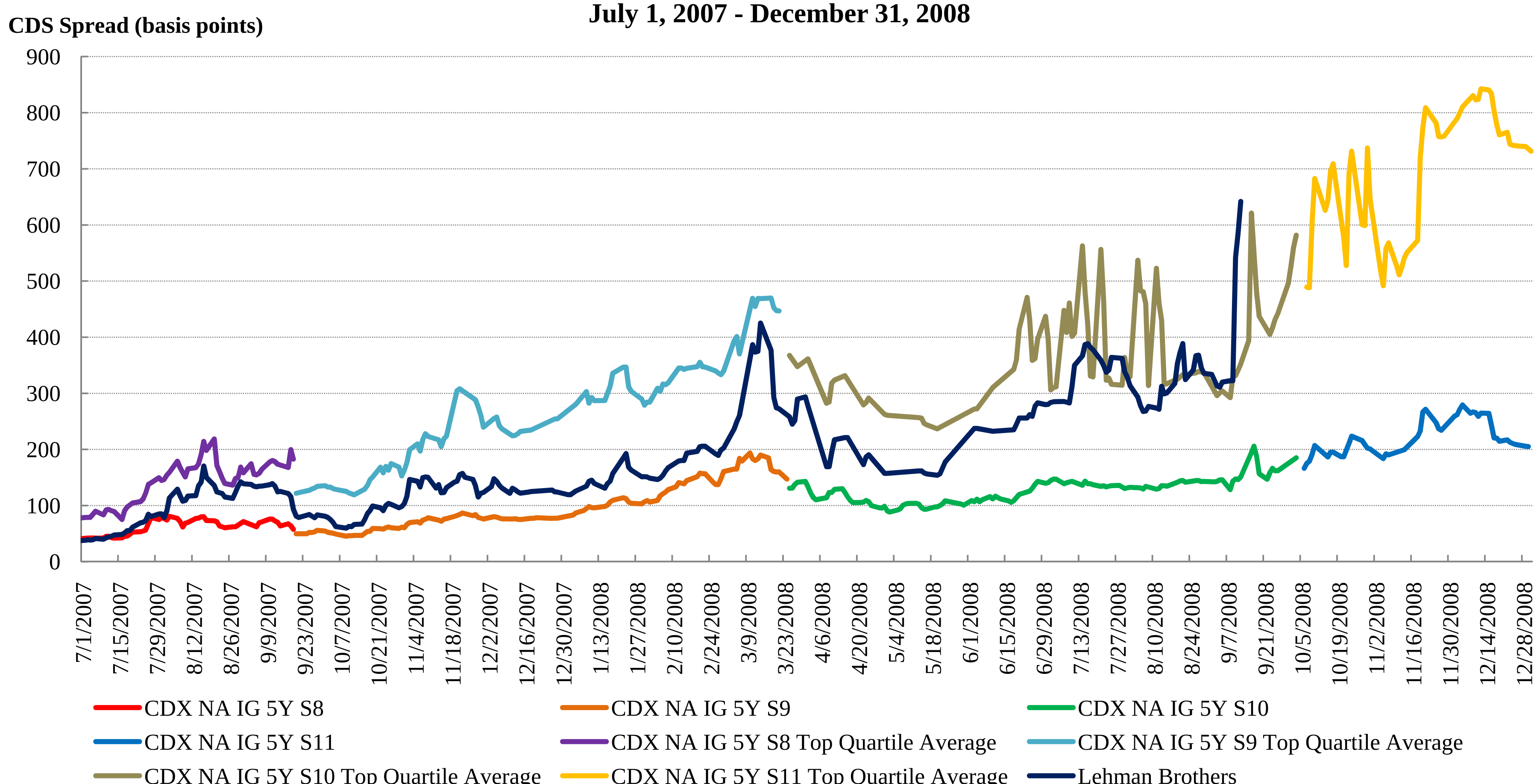
Exhibit 20
Five-Year Credit Default Swap Spreads
Lehman and the CDX North American Investment Grade CDS Index
July 1, 2007 - December 31, 2008



Notes:

[1] The Markit CDX North American Investment Grade Index is comprised of 125 investment grade entities. The composition of the Markit CDX Index is determined by a consortium of 16 member banks. The Markit CDX Index is updated every six months in March and September. Series 8 was updated on March 25, 2007, Series 9 was updated on September 20, 2007, Series 10 was updated on March 25, 2008, and Series 11 was updated on October 6, 2008.

[2] Top-quartile averages are simple averages of the spreads of the top-quartile companies included in the CDX Index as ranked by highest average spread over the relevant time period.

[3] Only two of the companies in the top quartile (i.e. CIT Group Inc., and Washington Mutual, Inc.) filed for bankruptcy.

Source: Bloomberg L.P.

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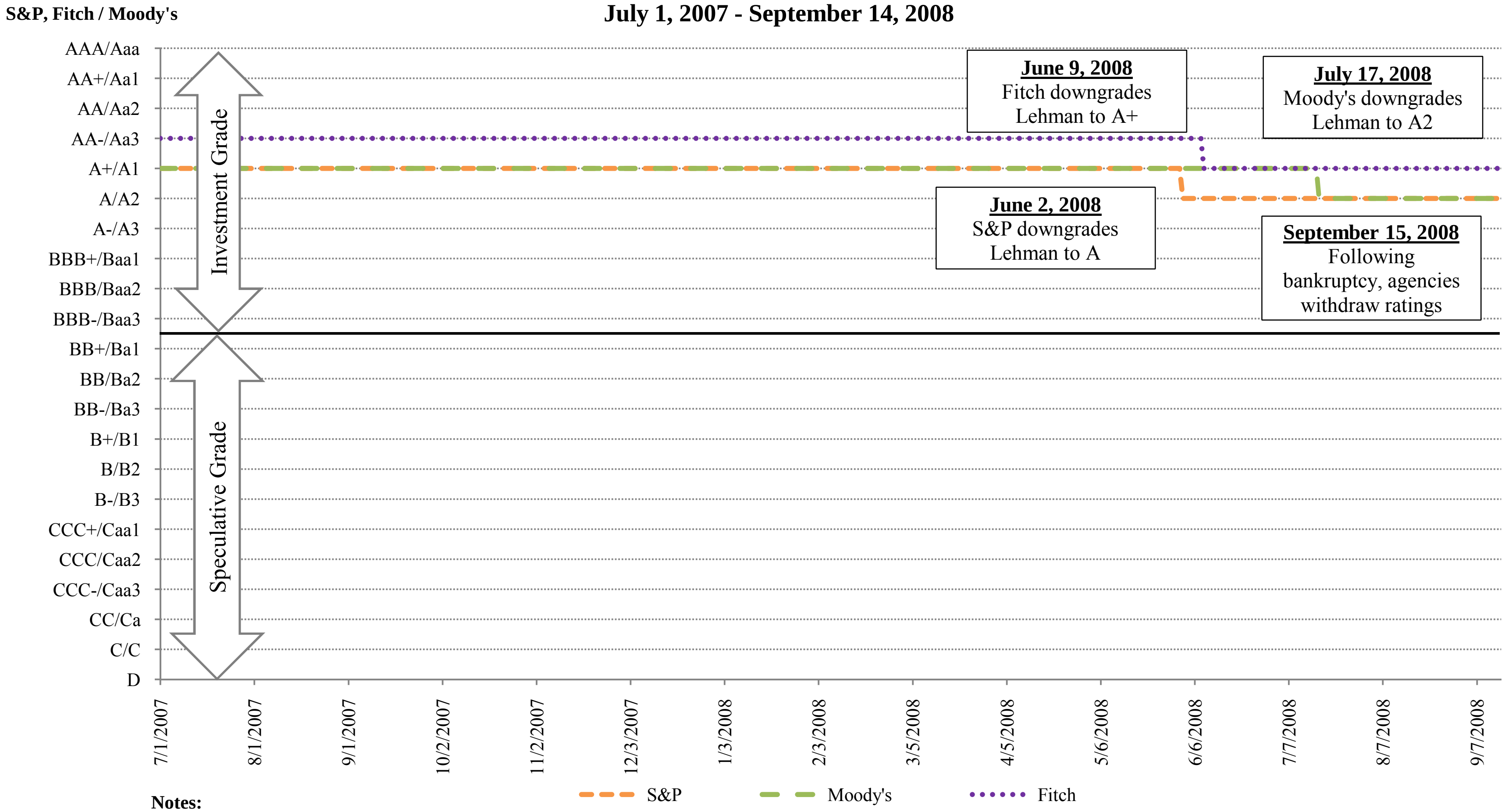
Exhibit 21
Lehman Long-Term Unsecured Credit Rating
July 1, 2007 - September 14, 2008



Notes:
[1] The S&P rating for Lehman is the 'LT Local Issuer Credit' rating.
[2] The Moody's rating for Lehman is the 'Senior Unsecured Debt' rating.
[3] The Fitch rating for Lehman is the 'Senior Unsecured Debt' rating.
[4] Moody's does not have a rating below 'C'.

Sources:
[1] Bloomberg L.P.
[2] "Understanding Standard & Poor's Ratings Definitions," Standard & Poor's, August 20, 2010.
[3] "Ratings Symbols and Definitions," Moody's Investors Service, November 2009.
[4] "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010.

Exhibit 22
Guide to Long-Term Credit Ratings Issued by Major Rating Agencies

	Rating			Description		
	S&P	Moody's	Fitch	S&P	Moody's	Fitch
Investment Grade	AAA	Aaa	AAA	An obligation rated 'AAA' has the highest rating assigned by Standard & Poor's The obligor's capacity to meet its financial commitment on the obligation is extremely strong	Obligations rated Aaa are judged to be of the highest quality, with minimal credit risk	'AAA' ratings denote the lowest expectation of default risk They are assigned only in cases of exceptionally strong capacity for payment of financial commitments This capacity is highly unlikely to be adversely affected by foreseeable events
	AA+ AA AA-	Aa1 Aa2 Aa3	AA+ AA AA-	An obligation rated 'AA' differs from the highest-rated obligations only to a small degree The obligor's capacity to meet its financial commitment on the obligation is very strong	Obligations rated Aa are judged to be of high quality and are subject to very low credit risk	'AA' ratings denote expectations of very low default risk They indicate very strong capacity for payment of financial commitments This capacity is not significantly vulnerable to foreseeable events
	A+ A A-	A1 A2 A3	A+ A A-	An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories However, the obligor's capacity to meet its financial commitment on the obligation is still strong	Obligations rated A are considered upper-medium grade and are subject to low credit risk	'A' ratings denote expectations of low default risk The capacity for payment of financial commitments is considered strong This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings
	BBB+ BBB BBB-	Baa1 Baa2 Baa3	BBB+ BBB BBB-	An obligation rated 'BBB' exhibits adequate protection parameters However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation	Obligations rated Baa are subject to moderate credit risk They are considered mediumgrade and as such may possess certain speculative characteristics	'BBB' ratings indicate that expectations of default risk are currently low The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity

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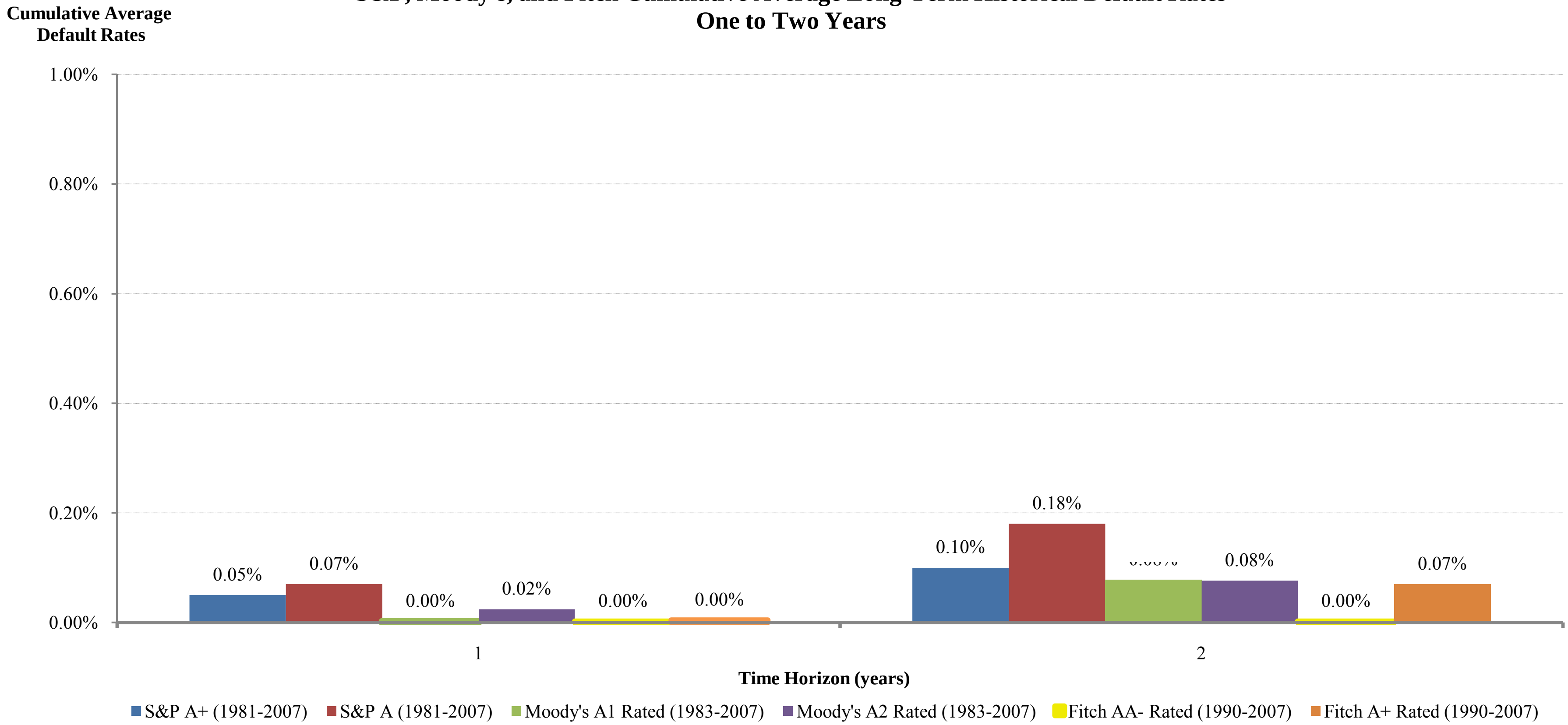
Exhibit 22
Guide to Long-Term Credit Ratings Issued by Major Rating Agencies

	Rating			Description		
	S&P	Moody's	Fitch	S&P	Moody's	Fitch
Speculative Grade	BB+ BB BB-	Ba1 Ba2 Ba3	BB+ BB BB-	An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions, which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation	Obligations rated Ba are judged to have speculative elements and are subject to substantial credit risk	'BB' ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments
	B+ B B-	B1 B2 B3	B+ B B-	An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitment on the obligation Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation	Obligations rated B are considered speculative and are subject to high credit risk	'B' ratings indicate that material default risk is present, but a limited margin of safety remains Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment
	CCC+ CCC CCC-	Caa1 Caa2 Caa3	CCC+ CCC CCC-	An obligation rated 'CCC' is currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation	Obligations rated Caa are judged to be of poor standing and are subject to very high credit risk	Default is a real possibility
	CC	Ca	CC	An obligation rated 'CC' is currently highly vulnerable to nonpayment	Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest	Default of some kind appears probable
	C	C	C	A 'C' rating is assigned to obligations that are currently highly vulnerable to nonpayment, obligations that have payment arrearages allowed by the terms of the documents, or obligations of an issuer that is the subject of a bankruptcy petition or similar action which have not experienced a payment default Among others, the 'C' rating may be assigned to subordinated debt, preferred stock or other obligations on which cash payments have been suspended in accordance with the instrument's terms	Obligations rated C are the lowest rated class of bonds and are typically in default, with little prospect for recovery of principal or interest	Default is imminent or inevitable, or the issuer is in standstill Conditions that are indicative of a 'C' category rating for an issuer include: a the issuer has entered into a grace or cure period following non-payment of a material financial obligation; b the issuer has entered into a temporary negotiated waiver or standstill agreement following a payment default on a material financial obligation; or c Fitch Ratings otherwise believes a condition of 'RD' or 'D' to be imminent or inevitable, including through the formal announcement of a coercive debt exchange
	D		D	An obligation rated 'D' is in payment default The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on an obligation are jeopardized	Not Applicable	D' ratings indicate an issuer that in Fitch Ratings' opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, or which has otherwise ceased business Default ratings are not assigned prospectively to entities or their obligations; within this context, non-payment on an instrument that contains a deferral feature or grace period will generally not be considered a default until after the expiration of the deferral or grace period, unless a default is otherwise driven by bankruptcy or other similar circumstance, or by a coercive debt exchange

Sources:
[1] "Understanding Standard & Poor's Ratings Definitions," Standard & Poor's, August 20, 2010
[2] "Ratings Symbols and Definitions," Moody's Investors Service, November 2009
[3] "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010

Exhibit 23
S&P, Moody's, and Fitch Cumulative Average Long-Term Historical Default Rates
One to Two Years



Notes:

[1] S&P defines a default as recorded on the first occurrence of a payment default on any financial obligation - rated or unrated - other than a financial obligation subject to a bona fide commercial dispute; an exception occurs when an interest payment missed on the due date is made within the grace period.

[2] Moody's definition of default includes three types of credit events: (1) a missed or delayed disbursement of interest and/or principal; (2) bankruptcy, administration, legal receivership, or other legal blocks (perhaps by regulators) to the timely payment of interest and/or principal; or (3) a distressed exchange occurs where: (i) the issuer offers debt holders a new security or package of securities that amount to a diminished financial obligation (such as preferred or common stock, or debt with a lower coupon or par amount, lower seniority, or longer maturity); and (ii) the exchange has the effect of allowing the issuer to avoid a bankruptcy or payment default.

[3] Fitch defines a default as one of the following: (1) failure of an obligor to make timely payment of principal and/or interest under contractual terms of any financial obligation; (2) the bankruptcy filing, administration, receivership, liquidation or other winding up or cessation of business of an obligor; or (3) the distressed or other coercive exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation.

Sources:

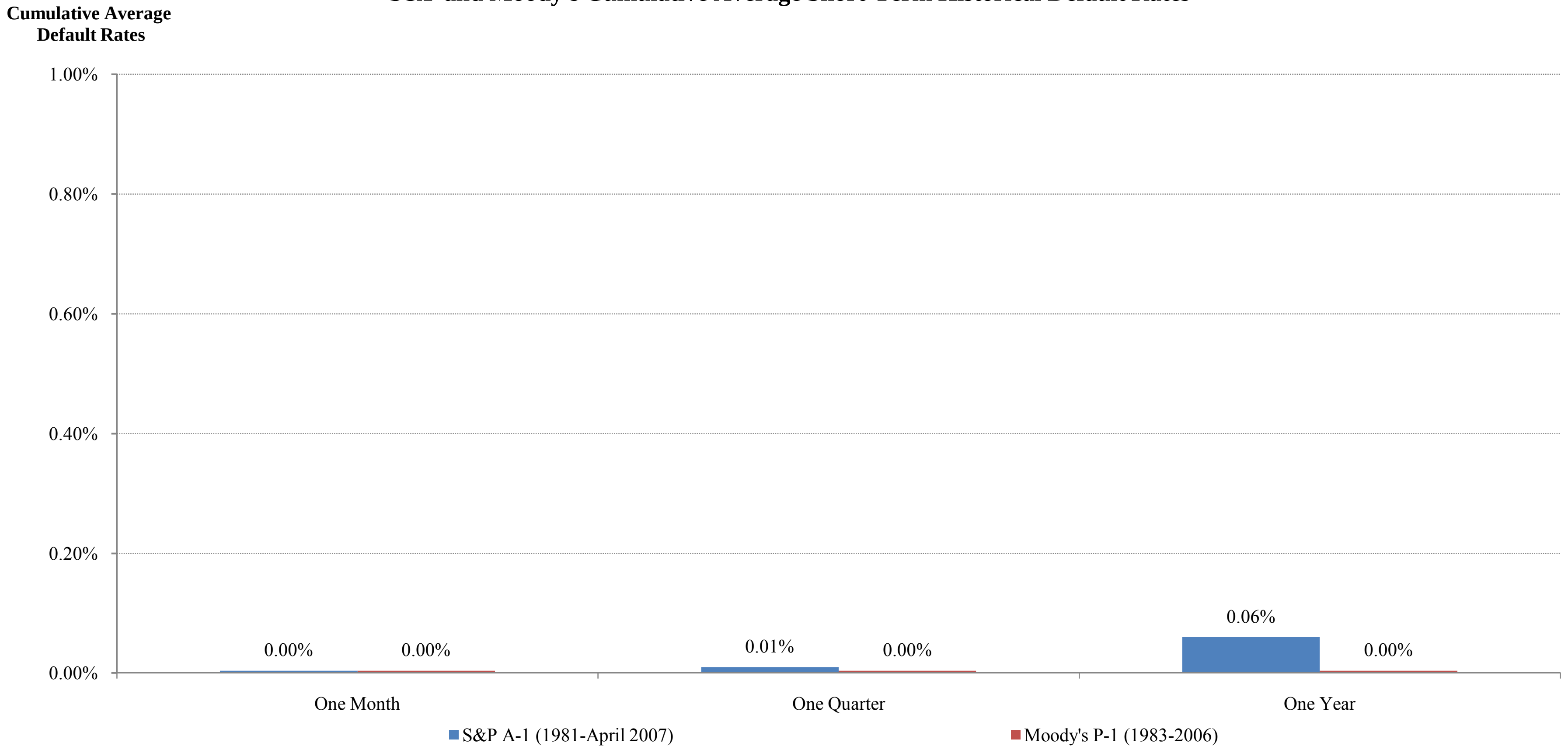
[1] Vazza, D., Aurora, D., and Kraemer, N., "Default, Transition, and Recovery: 2007 Annual Global Corporate Default Study And Rating Transitions," Standard & Poor's, February 5, 2008
[2] Emery, K., Ou, S., and Tennant, J., "Corporate Default and Recovery Rates, 1920-2007," Moody's Global Corporate Finance, February 2008
[3] Needham, C. L., Verde, M., and Hunter, R., "Fitch Ratings Global Corporate Finance 2007 Transition and Default Study," Fitch Ratings, April 30, 2008

Exhibit 24
Guide to Short-Term Credit Ratings Issued by Major Rating Agencies

	Rating			Description		
	S&P	Moody's	Fitch	S&P	Moody's	Fitch
Investment Grade	A-1	P-1	F1	A short-term obligation rated 'A-1' is rated in the highest category by Standard & Poor's The obligor's capacity to meet its financial commitment on the obligation is strong Within this category, certain obligations are designated with a plus sign (+) This indicates that the obligor's capacity to meet its financial commitment on these obligations is extremely strong	Issuers (or supporting institutions) rated Prime-1 have a superior ability to repay short-term debt obligations	Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added "+" to denote any exceptionally strong credit feature
	A-2	P-2	F2	A short-term obligation rated 'A-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories However, the obligor's capacity to meet its financial commitment on the obligation is satisfactory	Issuers (or supporting institutions) rated Prime-2 have a strong ability to repay short-term debt obligations	Good intrinsic capacity for timely payment of financial commitments
	A-3	P-3	F3	A short-term obligation rated 'A-3' exhibits adequate protection parameters However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation	Issuers (or supporting institutions) rated Prime-3 have an acceptable ability to repay short-term obligations	The intrinsic capacity for timely payment of financial commitments is adequate
Speculative Grade	B-1	NP	B	A short-term obligation rated 'B-1' is regarded as having significant speculative characteristics, but the obligor has a relatively stronger capacity to meet its financial commitments over the short-term compared to other speculative-grade obligors	Issuers (or supporting institutions) rated Not Prime do not fall within any of the Prime rating categories Note: Canadian issuers rated P-1 or P-2 have their short-term ratings enhanced by the senior-most longterm rating of the issuer, its guarantor or support-provider	Minimal capacity for timely payment of financial commitments, plus heightened vulnerability to near term adverse changes in financial and economic conditions
	B-2			A short-term obligation rated 'B-2' is regarded as having significant speculative characteristics, and the obligor has an average speculative grade capacity to meet its financial commitments over the short-term compared to other speculative-grade obligors		
	B-3			A short-term obligation rated 'B-3' is regarded as having significant speculative characteristics, and the obligor has a relatively weaker capacity to meet its financial commitments over the short-term compared to other speculative-grade obligors		
	C		C	A short-term obligation rated 'C' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation		Default is a real possibility
	Not Applicable	Not Applicable	RD	Not Applicable	Not Applicable	Indicates an entity that has defaulted on one or more of its financial commitments, although it continues to meet other financial obligations Applicable to entity ratings only
	D	Not Applicable	D	A short-term obligation rated 'D' is in payment default The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action if payments on an obligation are jeopardized	Not Applicable	Indicates a broad-based default event for an entity, or the default of a short-term obligation

Sources:
[1] "Understanding Standard & Poor's Ratings Definitions," Standard & Poor's, August 20, 2010
[2] "Ratings Symbols and Definitions," Moody's Investors Service, November 2009
[3] "Definitions of Ratings and Other Forms of Opinion," Fitch Ratings, October 2010

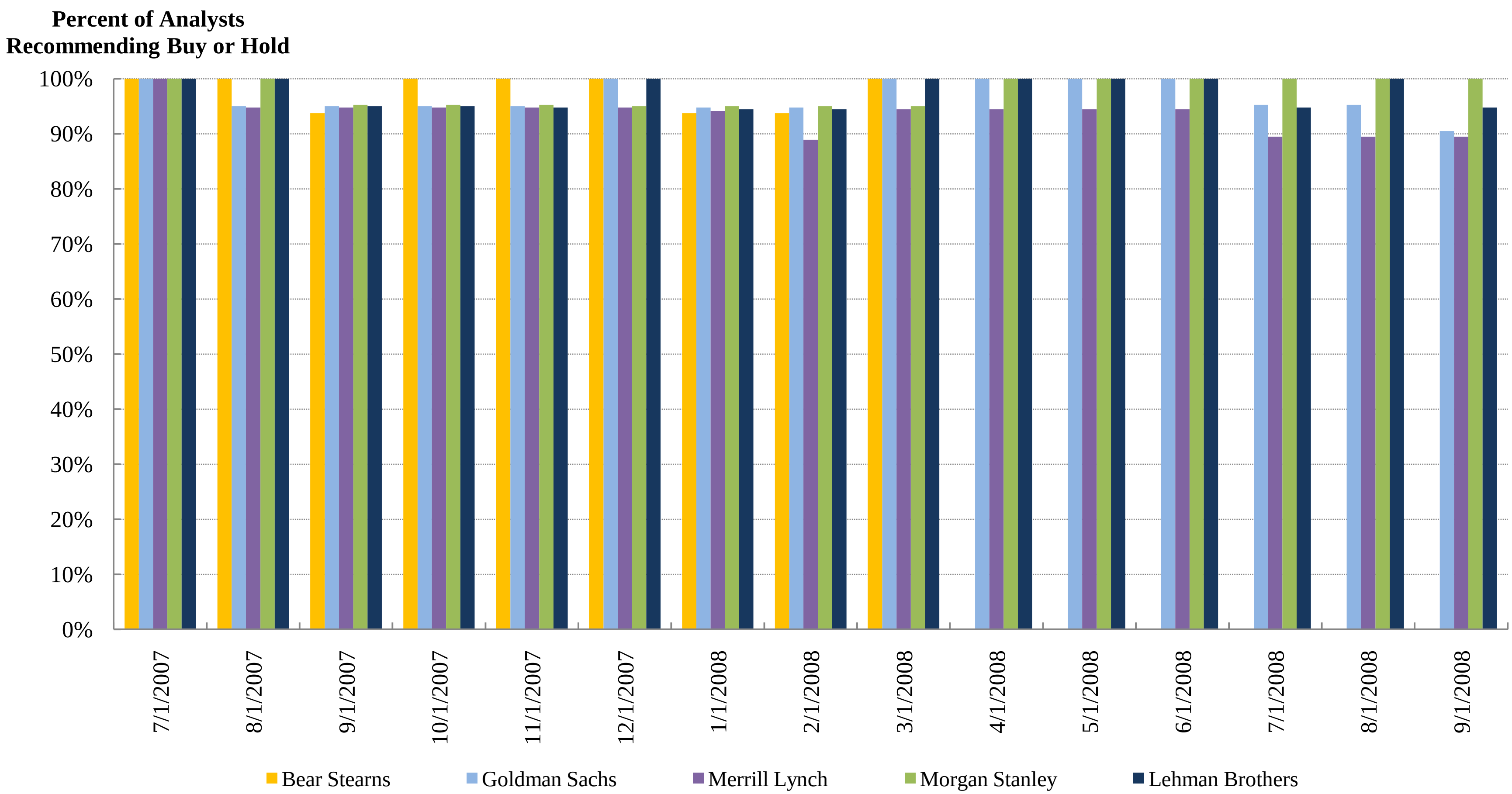
Exhibit 25
S&P and Moody's Cumulative Average Short-Term Historical Default Rates



Notes:
[1] S&P defines a default as recorded on the first occurrence of a payment default on any financial obligation - rated or unrated - other than a financial obligation subject to a bona fide commercial dispute; an exception occurs when an interest payment missed on the due date is made within the grace period.
[2] Moody's definition of default includes three types of credit events: (1) a missed or delayed disbursement of interest and/or principal; (2) bankruptcy, administration, legal receivership, or other legal blocks (perhaps by regulators) to the timely payment of interest and/or principal; or (3) a distressed exchange occurs where: (i) the issuer offers debt holders a new security or package of securities that amount to a diminished financial obligation (such as preferred or common stock, or debt with a lower coupon or par amount, lower seniority, or longer maturity); and (ii) the exchange has the effect of allowing the issuer to avoid a bankruptcy or payment default.

Sources:
[1] Vazza, D., and Aurora D., "Default, Transition, and Recovery: Global Short-Term Default Study And Rating Transitions," Standard & Poor's, June 21, 2007.
[2] Cantor, R., "Short-Term Corporate and Structured Finance Rating Transition Rates," Moody's Investors Service, June 2007.

Exhibit 26
Percent of Analysts Recommending Buy or Hold
Comparable Financial Companies - Investment Banks
July 1, 2007 - September 1, 2008



Notes:
[1] A recommendation is considered a "buy" if analyst recommends "buy" or "strong buy."
[2] JPMorgan Chase & Co. announced the acquisition of The Bear Stearns Companies, Inc. on March 16, 2008.

Sources:
[1] Thomson IBES.
[2] Capital IQ.

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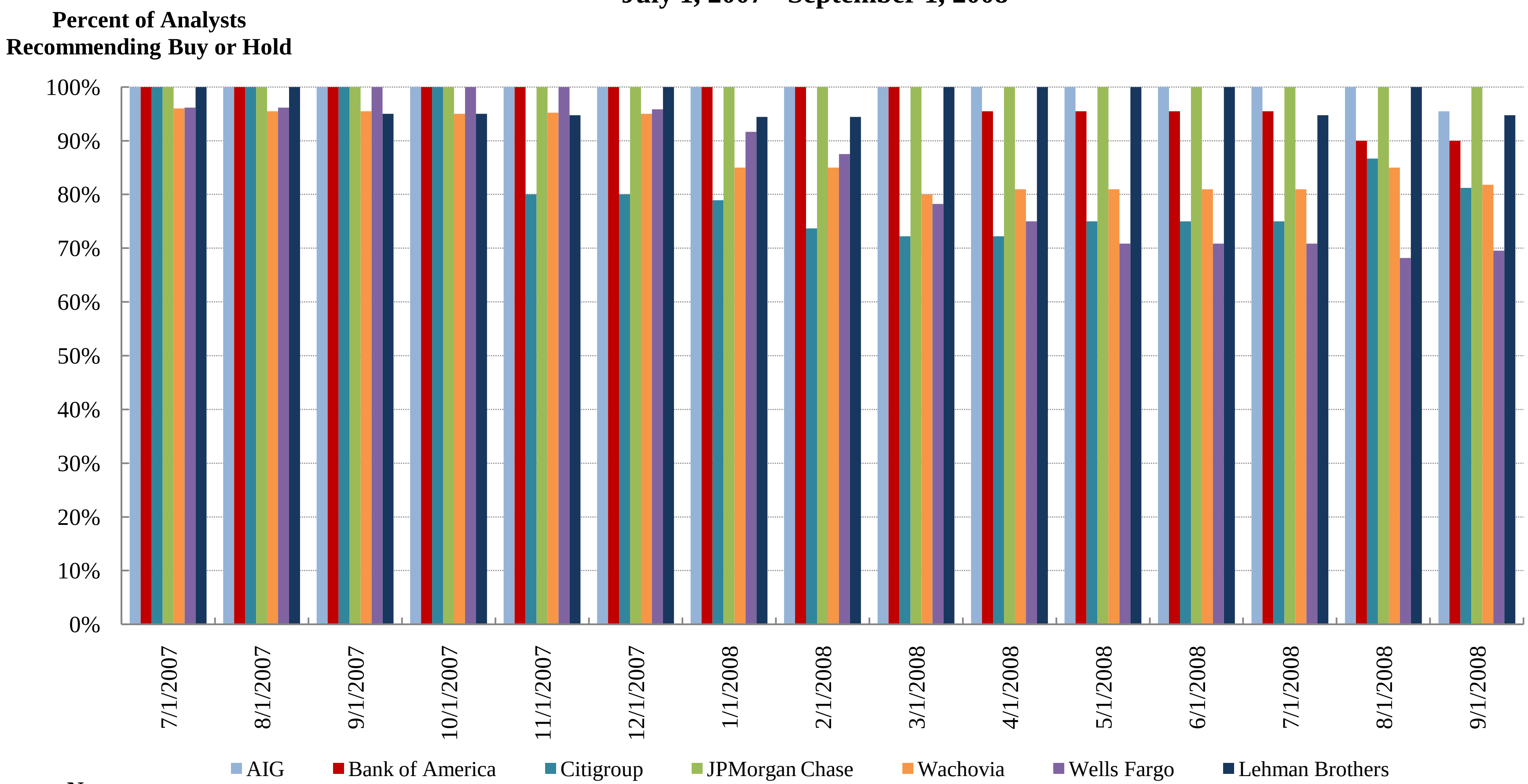
Exhibit 27
Percent of Analysts Recommending Buy or Hold
Comparable Financial Companies - Financial Institutions
July 1, 2007 - September 1, 2008



Notes:
[1] A recommendation is considered a "buy" if analyst recommends "buy" or "strong buy."
[2] Financial Institutions consist of financial entities that received at least $20 billion in TARP funds. Wachovia Corp. did not receive any TARP funds; Wells Fargo & Co. announced the acquisition of Wachovia on October 3, 2008.

Sources:
[1] Thomson IBES.
[2] Capital IQ.
[3] Ericson, M., Elaine He, and Amy Schoenfeld, "Tracking the $700 Billion Bailout," *The New York Times* was used to identify TARP participants.

Exhibit 28
Analyst Recommendations for Lehman
July 1, 2007 - September 15, 2008

Report Date	Contributor	Recommendation	Selected Quotes
8/17/2007	Fox-Pitt Kelton Cochran Caronia Waller	Outperform	In our view, a big disconnect between mkt concerns and Lehman's actual experience continues to subsist, likely due to investors' unwillingness to consider risk mitigation claims
9/19/2007	JPMorgan	Neutral	Writedowns related to LBO and mortgage exposures led to weak capital markets revenue; partially offset by strong results in banking and equity trading We maintain our Neutral rating due to concerns related to mortgage/leveraged finance and expenses required for Lehman's international build-out
9/19/2007	HSBC Global Research	Overweight	Lehman should trade closer to Goldman, Morgan Stanley, and Merrill Lynch, not Bear Stearns Solid results, followed by a decidedly bullish and surefooted conference call drove home the point that an advantageously scoped and scaled securities firm is set up to make plenty of money acting as intermediary in even the most difficult of markets
9/19/2007	Buckingham Research Group	Strong Buy	Overall, we remain bullish on the stock… Reiterate Strong Buy rating Given our constructive fundamental outlook, we believe LEH's shares are meaningfully undervalued
9/19/2007	Wachovia	Outperform	Away from fixed income, the Company's equities, investment banking and investment management divisions delivered record or near record results Today's results were, once again, a clear proof of Lehman's diversified platform
10/8/2007	Credit Suisse	Outperform (from Neutral)	We are raising our rating on Lehman Brothers to Outperform from Neutral based on improved performance prospects (both absolute and relative to peers) and with that a greater likelihood of multiple expansion and share price outperformance
10/24/2007	Deutsche Bank	Buy	CDOs are Not a Big Issue at Lehman, In Our View Lehman ranked well down in the league tables for underwriting CDOs and at quarter-end had $1 8B of ABS CDO exposure on a gross basis On a net basis, we estimate this exposure is negative given hedges that more than offset their exposure In other words, Lehman probably has gains on its net CDO position
12/13/2007	Wachovia	Outperform	Business conditions remain incredibly challenging, but market share grabbing opportunities appear to be surfacing This might not mean much now but could if things improve sometime in 2008 LEH remains well positioned to benefit from a favorable interest rate environment as well as a recovery in the IPO and advisory markets, in our view
12/13/2007	Credit Suisse	Outperform	Our thesis on LEH… the shares are rated Outperform based on improved performance prospects, both absolute and relative to peers, and with that a greater likelihood of multiple expansion and share price outperformance
12/13/2007	Deutsche Bank	Buy	Net-net: results could have been worse Lehman, while not likely the best among the brokers (still likely Goldman Sachs [GS, $212 58, Buy]), should rank among the better performers this quarter At first glance, there were no unusual surprises during a period that could have caused them
12/14/2007	Punk, Ziegel & Company	Sell	Balance sheet re-engineering is not the core of this company Operating businesses are The outlook for these businesses is not positive Therefore, even though this is one of the most impressive companies in the financial sector, its stock should be avoided
12/14/2007	JPMorgan	Neutral	While we view Lehman as well managed and nimble, decelerating US fixed income origination volume in 2007 and a deteriorating leveraged finance market have led to downward earnings revisions… However, we continue to view Lehman as having one of the best cultures on Wall Street, with a strong execution track record Accordingly, we expect Lehman will grow its US and international market share
12/14/2007	Buckingham Research Group	Strong Buy	We continue to emphasize LEH's strong risk management abilities (which is enabling them to grab market share), organic growth, and international exposure as drivers of growth going forward LEH is our top pick given upside EPS potential next year and inexpensive valuation

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Exhibit 28
Analyst Recommendations for Lehman
July 1, 2007 - September 15, 2008

Report Date	Contributor	Recommendation	Selected Quotes
1/10/2008	Deutsche Bank	Buy	Our sense is that Lehman is positioned for market share gains given a more consistent culture, greater stability with risk management, and benefits from investment spending, especially non- U S Lehman is a well-run company in a tough part of the cycle but with a below historical valuation As opposed to several of its peers, Lehman needed no capital injection or dramatic downsizing
3/17/2008	Deutsche Bank	Buy	Lehman is Not Bear 1) It has more liquidity (below) 2) It has support among its major counterparties, evidenced by an extension on Friday of a $2B working capital line with 40 banks (one issue w/Bear Stearns [BSC] seems to be that counterparties pulled in lines) 3) Its franchise is more diversified given almost half outside the US and an asset management business that is more than twice as large relative to its size (BSC was more plain vanilla) 4) It has a seasoned and experienced CEO (Bear's CEO was new)
3/18/2008	Punk Ziegel & Company	Buy	Further, the Federal Reserve has promised to provide whatever funding that may be required to keep primary dealers liquid Thus, anyone attacking Lehman would have to be able to bankrupt the Fed to break Lehman An attack on Lehman or any other primary dealer is an attack on the Fed To assume that Lehman would fail means that one assumes the Fed will not or cannot honor its commitments This is a bad bet to make
3/18/2008	Credit Suisse	Outperform	Bottom line… the facts are better than the fears; the quarter was fine; exposures are coming down, slowly, liquidity is strong
3/28/2008	Citi	Buy/High Risk (from Hold/High Risk)	After being on the sidelines for a couple of years, we see the current valuation as an extremely attractive entry point into Lehman shares Furthermore, the recent profitable quarter in a tough environment, the coordinated actions taken by the Fed & Treasury to provide meaningful liquidity, and Lehman's management team's excellent track record of creating value and managing risk all serve as excellent downside protection We see 70% upside in Lehman shares LEH's valuation is compelling based on virtually any historical metric, leading to an excellent risk/reward opportunity
4/1/2008	JPMorgan	Neutral	We continue to rate Lehman Neutral based on a business mix that could make earnings growth challenging and DVA adjustments that could slow an earnings recovery While the capital raise appears to have gone quite well, we don't think downward earnings revisions have concluded for the brokerage sector
4/1/2008	Punk, Ziegel & Company	Buy	In sum, it seems evident that Lehman is being pushed hard by the markets to prove its balance sheet is safe By raising additional capital and liquefying the balance sheet, the company hopes to put these fears to rest Once this is done the stock is likely to snap back in price My Buy recommendation indicates my faith that this will happen
4/1/2008	Buckingham Research Group	Strong Buy	LEH is now trading at a 40% discount to the peer group on a P/B basis and well below its 10-year and 5-year averages of 1 9x We believe the valuation discount is way overdone given LEH's superior risk management and still solid growth prospects in a market recovery environment
5/1/2008	Credit Suisse	Outperform	The shares are rated Outperform based on valuation and prospects for improving performance into 2009
5/5/2008	Deutsche Bank	Buy	In short, investors no longer even ask us about Lehman's survivability It seems like a foregone conclusion
6/5/2008	Deutsche Bank	Buy	We've gotten several questions this week about whether Lehman will fail, reflecting an exaggeration of many of the concerns that have been around for the past couple months We feel that Lehman is not Bear Liquidity is not a major issue, in our view Equity risk remains but does not seem outsized Revenues should continue to grow in most areas
6/9/2008	Buckingham Research Group	Strong Buy	Retain Strong Buy rating on valuation and franchise value With market share gains continuing and solidly diversified franchise (50% non US, 20% wealth mgmt), we expect a solid recovery in the fundamentals (as we saw with MS after its sizable 4Q loss)
6/10/2008	Wachovia	Market Perform	We underestimated how poorly marked LEH's assets were In addition, the larger capital raise at meaningfully lower prices indicates that the Company did not have, and potentially still does not have, a complete grasp of its exposures We are cautious on LEH's ability to navigate through its concentrated exposures in challenged asset classes However, LEH remains positioned to benefit from a favorable interes rate environment as well as a recovery in the IPO and advisory markets, in our view

Exhibit 28
Analyst Recommendations for Lehman
July 1, 2007 - September 15, 2008

Report Date	Contributor	Recommendation	Selected Quotes
6/30/2008	Morgan Stanley	Overweight	We think near-term risk of incremental write-downs is balanced by solid liquidity and capital footing A return to profitability amid a healing credit market should drive valuation close to book value BV is difficult to pin down, but we believe LEH has sufficient capital to absorb downside risk
7/24/2008	Morgan Stanley	Overweight	A return to profitability — in the context of a healing credit market backdrop — should be sufficient to drive valuation closer to book value Meanwhile, aggressive Fed moves and adequate capital cushion should help the firm weather near-term headwinds stemming from balance sheet overhang
8/15/2008	Fox-Pitt Kelton Cochran Caronia Waller	Outperform	We continue to believe that the popular bear case on Lehman—that mgmt wasn't taking write-downs to the extent of peers—was faulty in that gross write-downs had indeed been extensive over 1Q07-1Q08, and bears failed to realize that these gross marks had been mitigated by big hedging gains
8//28/2008	Ladenburg Thalman	Buy	The company is facing a large number of very unhappy investors and employees The reason for the upset is that the company may have been too slow to recognize the problems on its balance sheet This requires decisive action Since I believe the result will be a positive one, the stock is being recommended for purchase despite its dismal third fiscal quarter (ends August 31) expectations Lehman continues to be one of the most attractive firms in the business
9/5/2008	Deutsche Bank	Buy	We feel that Lehman will be left with a lower risk balance sheet that will put behind the question of its viability and, therefore maintain Buy
9/10/2008	Credit Suisse	Neutral	There remains significant execution risk, most notably with respect to the ultimate value of the commercial real estate being spun-off and with that, future capital needs Our estimates and target price have been reduced; the shares remain Neutral rated
9/10/2008	Fox-Pitt Kelton Cochran Caronia Waller	Outperform	On balance, Lehman's earnings were cyclically depressed, as we expect to see at peers next week The good news is that—at least through August-end—Lehman's franchise does not appear to have been impacted by the negative headlines and weak stock performance
9/10/2008	JPMorgan	Neutral	While we view Lehman as nimble and having one of the best cultures on Wall Street, deteriorating fixed income asset valuations and leveraged loans have led to downward earnings revisions
9/11/2008	Buckingham Research Group	Neutral	While we strongly disagree with the rating agencies' stance, perception is reality in this business and a significant downgrade would be very onerous on LEH's trading business That said, we do see tremendous upside in the stock if LEH can maintain a single A rating However, the uncertainty of whether they can maintain that (particularly in light of Moody's target in the BBB range) leaves us no choice but to move to the sidelines on the stock
9/11/2008	Ladenburg Thalman	Buy	I still believe that this is one of the best companies on Wall Street and that it has value well beyond its current stock price Therefore, the stock remains a Buy In sum, management is attempting to keep its head while everyone around it is losing theirs
9/11/2008	Wachovia	Market Perform	We are cautious on LEH shares due to uncertainty regarding the proposed REI spinoff and sale of the IMD business However, LEH remains positioned to benefit from a favorable interest rate environment as well as a recovery in the IPO and advisory markets, in our view, if LEH's transactions are completed
9/11/2008	HSBC Global Research	Underweight	The meaningful distinctions with Bear Stearns should limit how wide this name could trade; still, near-term uncertainty keeps us Underweight Lehman is a better, more diversified franchise It is much more conservatively funded, and carries a huge liquidity pool of some $42 billion It has access to the Federal Reserve for emergency funding It also has one thing that it shares with Bear Stearns—it is too big to fail in our opinion The interconnectedness of the firm within the global financial system is firmly bound We have to believe that no regulator or central banker really wants to find out what a massive counterparty risk failure would look like

Appendix A

ROBERT GLENN HUBBARD

Curriculum Vitae

PERSONAL DATA

Born: In Orlando, Florida.
Marital Status: Married to Constance Pond Hubbard.
Two children, Robert Andrew Pond Hubbard
and William Charles Pond Hubbard.

FIELDS OF SPECIALIZATION

Public Economics, Corporate Finance and Financial Institutions, Macroeconomics, Industrial Organization, Natural Resource Economics, Public Policy.

EDUCATION

Ph.D., Economics, Harvard University, May 1983.
Dissertation: *Three Essays on Government Debt and Asset Markets*, supervised by Benjamin M. Friedman, Jerry A. Hausman, and Martin S. Feldstein.

A.M., Economics, Harvard University, May 1981.

B.A., B.S., Economics, University of Central Florida, June 1979, *summa cum laude*.

HONORS AND AWARDS

Joint American Economic Association/American Finance Association Distinguished Speaker, 2008.

Cairncross Lecture, University of Oxford, 2007.

Fellow of the National Association of Business Economists, 2005.

William F. Butler Memorial Award, New York Association of Business Economists Award, 2005.

Exceptional Service Award, The White House, 2002.

Michelle Akers Award for Distinguished Service, University of Central Florida, 2001.

Alumni Hall of Fame, University of Central Florida, 2000.

Best Paper Award for Corporate Finance, Western Finance Association, 1998.

Exceptional Service Award, U.S. Department of the Treasury, 1992.

Distinguished Alumnus Award, University of Central Florida, 1991.

John M. Olin Fellowship, National Bureau of Economic Research, 1987-1988.

Teaching Commendations, Graduate School of Business, Columbia University.

Northwestern University Associated Student Government Teaching Awards, announced in 1985, 1986, and 1987.

Graduate Distinctions: National Science Foundation Fellowship, Alfred P. Sloan Foundation Fellowship.

Undergraduate Distinctions: National Merit Scholarship, National Society of Professional Engineers Award, Florida Society of Professional Engineers Award, National Council of Teachers of English Award, Omicron Delta Kappa, Financial Management Association Honor Society.

POSITIONS HELD

2004-present	Dean, Graduate School of Business, Columbia University
1994-present	Russell L. Carson Professor of Economics and Finance, Graduate School of Business, Columbia University
1997-present	Professor of Economics, Faculty of Arts and Sciences, Columbia University
2007-present	Panel of Economic Advisors, Federal Reserve Bank of New York (also 1993-2001)
2003-present	Featured commentator, *Nightly Business Report*
2003-2010	Featured commentator, *Marketplace*
2003-2007	Visiting Scholar American Enterprise Institute (also 1995-2001)
1999-2004	Co-Director, Columbia Business School Entrepreneurship Program
2004-2005	Viewpoint Columnist, *Business Week*
2004-2006	Member, Panel of Economic Advisors, Congressional Budget Office
2001-2003	Chairman, President's Council of Economic Advisers
2001-2003	Chairman, Economic Policy Committee, Organization for Economic Cooperation and Development
2001-2003	Member, White House National Economic Council and National Security Council
2001-2003	Member, President's Council on Science and Technology

1997-1998	Visiting Professor of Business Administration, Harvard Business School
1995-2001	Visiting Scholar and Director of Tax Policy Program, American Enterprise Institute
1994-1997	Senior Vice Dean, Graduate School of Business, Columbia University
1994	MCI Fellow, American Council for Capital Formation
1994	John M. Olin Visiting Professor, Center for the Study of Economy and the State, University of Chicago
1991-1993	Deputy Assistant Secretary (Tax Analysis), U.S. Department of the Treasury
1988-present	Professor of Economics and Finance, Graduate School of Business, Columbia University
1987-1988	John M. Olin Fellow in residence at the National Bureau of Economic Research
1983-1988	Assistant Professor of Economics, Northwestern University, with half-time research appointment in the Center for Urban Affairs and Policy Research
1985	Visiting Scholar, Center for Business and Government, John F. Kennedy School of Government, Harvard University
1981-1983	Teaching Fellow (Department of Economics) and Resident Tutor in Economics (Dunster House), Harvard University

DIRECTORSHIPS

2007-present	Met Life
2006-2008	Capmark Financial Corporation; Information Services Group
2004-present	ADP, Inc.; KKR Financial Corporation; BlackRock Closed-End Funds
2004-2008	Duke Realty Corporation
2004-2006	Dex Media/R.H. Donnelley
2003-2005	ITU Ventures
2000-2001	Angel Society, LLC; Information Technology University, LLC

CONSULTING OR ADVISORY RELATIONSHIPS

2005-2009	Arcapita
2005-present	Nomura Holdings America
2003-present	Analysis Group (also 1995-2003)
2008	Laurus Funds
2005-2008	Chart Venture Partners
2003-2009	Ripplewood Holdings

POSTS IN NON-PROFIT ORGANIZATIONS

2008-present	Elder, Fifth Avenue Presbyterian Church
2006-present	Co-Chair, Committee on Capital Markets Regulation
2004-present	Member, Advisory Board, National Center on Addiction and Substance Abuse
2003-present	Member, Manhattan District Council Board, Boy Scouts of America
2008-2010	Chairman, Economic Club of New York
2006-2008	Member, Board of Directors, Resources for the Future
2003-2008	Trustee, Tax Foundation
2004-2010	Trustee, Economic Club of New York
2004-2007	Trustee, Fifth Avenue Presbyterian Church, New York

PROFESSIONAL ACTIVITIES

1987-present	Research Associate, National Bureau of Economic Research (Monetary Economics, Corporate Finance, Public Economics, Economic Fluctuations, Industrial Organization)
2007-present	Life Member, Council on Foreign Relations
2003	Member, Committee of Visitors, National Science Foundation
2000	Panelist, Graduate Fellowship Selection Committee, National Science Foundation
1999-2001	Director, Project on Nonprofit Organizations, National Bureau of Economic Research
1997-2001	Member, COSSA-Liaison Committee, American Economic Association
1993-2001	Board of Advisors, Institutional Investor Project, School of Law, Columbia University
1995-1999	Member, Board of Academic Consultants, American Law Institute
1997	Member, Grants Panel for Integrative Graduate Education and Research Training Program, National Science Foundation
1994-1996	Member, Economics Grants Panel, National Science Foundation
1993-1996	Member, Federal Taxation and Finance Committee, National Tax Association
1990-1995	Co-organized research program on International Aspects of Taxation at the National Bureau of Economic Research, Cambridge, Massachusetts
1995	Member, Program Committee, American Economic Association Meeting
1983-1987	Faculty Research Fellow, National Bureau of Economic Research
1983-1986	Adjunct Faculty Research Fellow, Energy and Environmental Policy Center, John F. Kennedy School of Government, Harvard University, Cambridge, Massachusetts
1986, 1988, 1994	Member of the Brookings Panel on Economic Activity
1985, 1987	Special guest of the Brookings Panel on Economic Activity
1990-1991	Organized research program on Environmental Economics and Public Policy at the National Bureau of Economic Research, Cambridge, Massachusetts

1988-1990	Co-organized research program on Dynamic Models of Firms and Industries at the National Bureau of Economic Research, Cambridge, Massachusetts
1985-1989	Organized research program and workshops on contracting in financial markets at the Summer Institute, National Bureau of Economic Research, Cambridge, Massachusetts
1988	Organized Economic Fluctuations program on Industrial Economics and Macroeconomics, National Bureau of Economic Research, Stanford, California
1986-1988	Organized research program and workshop on links between macroeconomics and industrial organization at the Summer Institute, National Bureau of Economic Research, Cambridge, Massachusetts
1991	Member, Program Committee, Econometric Society Winter Meetings
1982-1983	Member, Energy Modeling Forum VII Study Group, Stanford University, Stanford, California
1981-present	Consultant on research projects with private corporations and government and international agencies, including the Internal Revenue Service, Social Security Administration, U.S. Department of Energy, U.S. Department of State, U.S. Department of Treasury, and U.S. International Trade Commission; National Science Foundation; The World Bank; Board of Governors of the Federal Reserve System; Federal Reserve Bank of New York; Congressional Budget Office
Member:	American Economic Association, American Finance Association, Association for Public Policy and Management, Econometric Society, International Association of Energy Economists, National Tax Association, the Royal Economic Society, and the Institute for Management Science

Referee: *American Economic Review; Canadian Journal of Economics; Columbia Journal of World Business; Econometrica; Economic Journal; Energy Economics; Energy Journal; International Finance; International Tax and Public Finance; Journal of Business; Journal of Business and Economic Statistics; Journal of Economic History; Journal of Economic Literature; Journal of Finance; Journal of Financial Economics; Journal of Financial Intermediation; Journal of Financial and Quantitative Analysis, Journal of Financial Services Research; Journal of Industrial Economics; Journal of International Money and Finance; Journal of Law and Economics; Journal of Macroeconomics; Journal of Money, Credit, and Banking; Journal of Monetary Economics; Journal of Political Economy; Journal of Public Economics; Journal of Regulatory Economics; Journal of Small Business Finance; Management Science; National Tax Journal; Quarterly Journal of Economics; Quarterly Review of Economics and Finance; RAND Journal of Economics; Review of Economic Dynamics; Review of Economic Studies; Review of Economics and Statistics; Review of Financial Economics; Scandinavian Journal of Economics; Southern Economic Journal; National Science Foundation*; C.V. Starr Center for Applied Economics (New York University); Addison-Wesley Publishing Company; Ballinger Press; Cambridge University Press; Harvard Business School Press; MIT Press; W.W. Norton; Oxford University Press

Former Associate *Federal Reserve Bank of New York Economic Policy Review;*
International Editor: *Finance; International Tax and Public Finance; Journal of*
Industrial Economics; Journal of Macroeconomics; Journal of Small Business
Finance; National Tax Journal

PUBLICATIONS AND PAPERS

Edited Volumes

Transition Costs of Fundamental Tax Reform (with K.A. Hassett), Washington, DC: AEI Press, 2001.

Inequality and Tax Policy (with K.A. Hassett), Washington, DC: AEI Press, 2001.

Effects of Taxation on Multinational Corporations (with M. Feldstein and J.R. Hines), Chicago: University of Chicago Press, 1995.

Taxing Multinational Corporations (with M. Feldstein and J. R. Hines), Chicago: University of Chicago Press, 1995.

Studies in International Taxation (with A. Giovannini and J. B. Slemrod), Chicago: University of Chicago Press, 1993.

Financial Markets and Financial Crises, Chicago: University of Chicago Press, 1991.

Asymmetric Information, Corporate Finance, and Investment, Chicago: University of Chicago Press, 1990.

Books

Seeds of Destruction (with P. Navarro), FT Publishing, 2010.

The Mutual Fund Industry: Competition and Investor Welfare (with M.F. Koehn, S.I. Ornstein, M. Van Audenrode, and J. Royer), New York: Columbia Business School Publishing, 2010.

The Aid Trap: Hard Truths About Ending Poverty (with W. Duggan), Columbia Business School Publishing, 2009

Healthy, Wealthy, and Wise (with J.F. Cogan and D.P. Kessler), Washington AEI Press, 2005.

Textbooks

Principles of Economics (with A.P. O'Brien), Prentice Hall, 1st ed., 2006; 2nd ed., 2008; 3rd ed., 2010.

Money, the Financial System, and the Economy, Reading: Addison-Wesley Publishing Company, 1st ed., 1994; 2nd ed., 1997; 3rd ed., 2000; 4th ed., 2002; 5th ed., 2004; 6th ed., 2007.

Publications

Articles

"The Effect of Massachusetts' Health Reform on Employer-Sponsored Insurance Premiums" (with J.F. Cogan and D.P. Kessler), *Forum for Health Economics and Policy*, 2010.

"The Mortgage Market Meltdown and House Prices" (with C. Mayer), *The B.E. Journal of Economic Analysis & Policy* 9: Issue 3 (Symposium), Article 8 (2009).

"Competition in the Mutual Fund Industry: Evidence and Implications for Policy" (with J. Coates), *Journal of Corporation Law*, 33 (Fall 2007).

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"To Bundle or Not to Bundle: Firms' Choices Under Pure Building" (with A. Saha and J. Lee), *International Journal of the Economics of Business*, 14 (2007): 59-83.

"The Effects of Progressive Income Taxation on Job Turnover" (with W.M. Gentry), *Journal of Public Economics* 88 (September 2004): 2301-2322.

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"Precautionary Savings and the Governance of Nonprofit Organizations" (with R. Fisman), *Journal of Public Economics*, 2005.

"Government Debt and Interest Rates" (with E. Engen), in M. Gertler and K. Rogoff, *NBER Macroeconomics Annual 2004*, Cambridge: MIT Press, 2005.

"Entrepreneurship and Household Saving" (with W.M. Gentry), *Advances in Economic Analysis and Policy*, 4 (2004).

"Taxing Multinationals" (with M. Devereux), *International Taxation and Public Finance* 10(2003):469-487.

"The Effect of the Tax Reform Act of 1986 on the Location of Assets in Financial Services Firms" (with R. Altshuler), *Journal of Public Economics* 87 (January 2003):109-127.

"The Role of Nonprofit Endowments" (with R. Fisman), in E. Glaeser, ed., *The Governance of Not-For-Profit Organizations*, Chicago: University of Chicago Press, 2003.

"Are There Bank Effects in Borrowers' Costs of Funds?: Evidence from a Matched Sample of Borrowers and Banks" (with K.N. Kuttner and D.N. Palia), *Journal of Business* 75 (October 2002): 559-581.

"The Share Price Effects of Dividend Taxes and Tax Imputation Credits" (with T.S. Harris and D. Kemsley), *Journal of Public Economics* 79 (March 2001): 569-596.

"Tax Policy and Entrepreneurial Entry" (with W.M. Gentry), *American Economic Review* 90 (May 2000).: 283-287.

"Understanding the Determinants of Managerial Ownership and the Link Between Ownership and Performance" (with C.P. Himmelberg and D. Palia), *Journal of Financial Economics* 53 (1999): 353-384.

"A Reexamination of the Conglomerate Merger Wave in the 1960s" (with D. Palia), *Journal of Finance* 54 (June 1999): 1131-1152.

"Inflation and the User Cost of Capital: Does Inflation Still Matter?" (with D. Cohen and K.A. Hassett), in M. Feldstein, ed., *The Costs and Benefits of Achieving Price Stability*, Chicago: University of Chicago Press, 1999.

"Are Investment Incentives Blunted by Changes in Prices of Capital Goods?: International Evidence" (with K.A. Hassett), *International Finance* 1 (October 1998): 103-125.

"Capital-Market Imperfections and Investment," *Journal of Economic Literature* 36 (March 1998): 193-225.

"Fundamental Tax Reform and Corporate Financial Policy" (with W.M. Gentry), in J.M. Poterba, ed., *Tax Policy and the Economy*, volume 12, Cambridge: MIT Press, 1998.

"Distributional Implications of Introducing a Broad-Based Consumption Tax" (with W.M. Gentry), in J.M. Poterba, ed., *Tax Policy and the Economy*, volume 11, Cambridge: MIT Press, 1997.

"How Different Are Income and Consumption Taxes?," *American Economic Review* 87 (May 1997): 138-142.

"Tax Policy and Investment," (with K.A. Hassett), in A.J. Auerbach, ed., *Fiscal Policy: Lessons from Economic Research*, Cambridge: MIT Press, 1997.

"Assessing the Effectiveness of Saving Incentives" (with J. Skinner), *Journal of Economic Perspectives* 10 (Fall 1996): 73-90.

"The Political Economy of Branching Restrictions and Deposit Insurance: A Model of Monopolistic Competition Among Small and Large Banks" (with N. Economides and D. Palia), *Journal of Law and Economics* 39 (October 1996): 667-704.

"Tax Reforms and Investment: A Cross-Country Comparison" (with J.G. Cummins and K.A. Hassett), *Journal of Public Economics* 62 (1996): 237-273.

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"Tax Policy, Internal Finance, and Investment: Evidence from the Undistributed Profits Tax of 1936-1937" (with C. Calomiris), *Journal of Business* 68 (October 1995): 443-482.

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"Precautionary Saving and Social Insurance" (with J. Skinner and S. Zeldes), *Journal of Political Economy* 105 (April 1995): 360-399.

"Expanding the Life-Cycle Model: Precautionary Saving and Public Policy" (with J. Skinner and S. Zeldes), *American Economic Review* 84 (May 1994): 174-179.

"The Tax Sensitivity of Foreign Direct Investment: Evidence from Firm-Level Panel Data" (with J. Cummins), in M. Feldstein, J.R. Hines, and R.G. Hubbard, eds., *Effects of Taxation on Multinational Corporations*, Chicago: University of Chicago Press, 1995.

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"Internal Finance and Firm-Level Investment" (with A. Kashyap and T. Whited), *Journal of Money, Credit, and Banking* 27 (August 1995): 683-701.

"Do Tax Reforms Affect Investment?" (with J.G. Cummins and K.A. Hassett), in J.M. Poterba, ed., *Tax Policy and the Economy*, vol. 9, Cambridge: MIT Press, 1995.

"The Importance of Precautionary Motives for Explaining Individual and Aggregate Saving" (with J. Skinner and S. Zeldes), *Carnegie-Rochester Conference Series on Public Policy* 40 (June 1994): 59-126.

"Corporate Financial Policy, Taxation, and Macroeconomic Risk" (with M. Gertler), *RAND Journal of Economics* 24 (Summer 1993): 286-303.

"Internal Net Worth and the Investment Process: An Application to U.S. Agriculture" (with A. Kashyap), *Journal of Political Economy* 100 (June 1992): 506-534.

"Long-Term Contracting and Multiple-Price Systems" (with R. Weiner), *Journal of Business* 65 (April 1992): 177-198.

"Efficient Contracting and Market Power: Evidence from the U.S. Natural Gas Industry" (with R. Weiner), *Journal of Law and Economics* 34 (April 1991): 25-67.

"Interest Rate Differentials, Credit Constraints, and Investment Fluctuations" (with M. Gertler and A. Kashyap), in R.G. Hubbard, ed., *Financial Markets and Financial Crises*, Chicago: University of Chicago Press, 1991.

"Taxation, Corporate Capital Structure, and Financial Distress" (with M. Gertler), in L.H. Summers, ed., *Tax Policy and the Economy*, volume 4, Cambridge: MIT Press, 1990.

"Firm Heterogeneity, Internal Finance, and Credit Rationing" (with C. Calomiris), *Economic Journal* 100 (March 1990): 90-104.

"Coming Home to America: Dividend Repatriations in U.S. Multinationals" (with J. Hines), in A. Razin and J.B. Slemrod, eds., *Taxation in the Global Economy,* Chicago: University of Chicago Press, 1990.

"Price Flexibility, Credit Availability, and Economic Fluctuations: Evidence from the U.S., 1894-1909" (with C. Calomiris), *Quarterly Journal of Economics* 104 (August 1989): 429-452.

"Financial Factors in Business Fluctuations" (with M. Gertler), in Federal Reserve Bank of Kansas City, *Financial Market Volatility--Causes, Consequences, and Policy Responses*, 1989.

"Contracting and Price Adjustment in Commodity Markets: Evidence from Copper and Oil" (with R. Weiner), *Review of Economics and Statistics* 71 (February 1989): 80-89.

"Financing Constraints and Corporate Investment" (with S. Fazzari and B.C. Petersen), *Brookings Papers on Economic Activity*, 1988:1: 141-195; Reprinted in Z.J. Acs, ed., *Small Firms and Economic Growth*, Cheltenham, U.K.: Edward Elgar Publishing Ltd., 1995.

"Investment, Financing Decisions, and Tax Policy" (with S. Fazzari and B.C. Petersen), *American Economic Review* 78 (May 1988): 200-205.

"Market Structure and Cyclical Fluctuations in U.S. Manufacturing" (with I. Domowitz and B.C. Petersen), *Review of Economics and Statistics* 70 (February 1988): 55-66.

"Capital Market Imperfections and Tax Policy Analysis in the Life-Cycle Model" (with K. Judd), Annales d' *Economie et de Statistique* 9 (January-March 1988): 111-139.

"Social Security and Individual Welfare: Precautionary Saving, Borrowing Constraints, and the Payroll Tax" (with K. Judd), *American Economic Review* 77 (September 1987): 630-646.

"Oligopoly Supergames: Some Empirical Evidence on Prices and Margins" (with I. Domowitz and B.C. Petersen), *Journal of Industrial Economics* 36 (June 1987): 379-398.

"Uncertain Lifetimes, Pensions, and Individual Saving," in Zvi Bodie, John B. Shoven, and David A. Wise (eds.), *Issues in Pension Economics*, Chicago: University of Chicago Press, 1987, pp. 175-205.

"The Farm Debt Crisis and Public Policy" (with C. Calomiris and J. Stock), *Brookings Papers on Economic Activity*, 1986:2: 441-479.

"Liquidity Constraints, Fiscal Policy, and Consumption" (with K. Judd), *Brookings Papers on Economic Activity*, 1986:1: 1-50.

"The Intertemporal Stability of the Concentration-Margins Relationship" (with I. Domowitz and B.C. Petersen), *Journal of Industrial Economics* 35 (September 1986): 13-34.

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"Supply Shocks and Price Adjustment in the World Oil Market," *Quarterly Journal of Economics* 101 (February 1986): 85-102.

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“The Effect of Tax Preferences on Health Spending” (with J.F. Cogan and D.P. Kessler), Working Paper, Columbia University, 2009.

“The Effect of Medicare Coverage for the Disabled on the Market for Private Insurance” (with J.F. Cogan and D.P. Kessler), Working Paper, Columbia University, 2009.

“Tax Policy and Wage Growth” (with W. M. Gentry), Working Paper, Columbia University, 2001.

"Investor Protection, Ownership, and Investment" (with C.P. Himmelberg and I. Love), Working Paper, Columbia University, 2000.

"Incentive Pay and the Market for CEOs: An Analysis of Pay-for-Performance Sensitivity" (with C.P. Himmelberg), Working Paper, Columbia University, 2001.

“Noncontractible Quality and Organizational Form in the U.S. Hospital Industry,” (with K.A. Hassett), Working Paper, Columbia University, 1999.

“Entrepreneurship and Household Saving,” (with W. M. Gentry), Working Paper, Columbia University, 2001.

“Corporate Payouts and the Tax Price of Corporate Retentions: Evidence from the Undistributed Profits Tax of 1936-37" (with P. Reiss),Working Paper No. 3111, National Bureau of Economic Research, September 1989.

"Market Structure, Durable Goods, and Cyclical Fluctuations in Markups" (with I. Domowitz and B. Petersen), Working Paper, Northwestern University, 1987.

"Finite Lifetimes, Borrowing Constraints, and Short-Run Fiscal Policy" (with K. Judd), Working Paper No. 2158, National Bureau of Economic Research, 1987.

GRANTS RECEIVED

“Corporate Board Study Group,” Rockefeller Foundation, 2009.

“Institutional Investors, Boards of Directors, and Corporate Governance,” Korn/Ferry, 1997.

"An Economic Analysis of Saving Incentives," Securities Industry Association, 1994, with Jonathan Skinner.

"Securities Transactions Taxes: Tax Design, Revenue, and Policy Considerations," Catalyst Institute, 1993.

"Precautionary Saving in the U.S. Economy," Bradley Foundation, 1989-1990, with Jonathan Skinner and Stephen Zeldes.

"Taxation, Corporate Leverage, and Financial Distress," Garn Institute for Finance, 1989-1990.

"Precautionary Saving in a Dynamic Model of Consumption and Labor Supply," National Science Foundation (Economics Group SES-8707997), 1987-1989, with Jonathan Skinner and Stephen Zeldes.

"Industrial Behavior and the Business Cycle: A Panel Data Study of U.S. Manufacturing," National Science Foundation (Economics Group SES-8420152), 1985-1987, with Ian Domowitz and Bruce Petersen.

"Efficient Contracting and Market Power: Evidence from the U.S. Natural Gas Market," Transportation Center, Northwestern University, Summer 1985.

"Constructing a Panel Data Base for Studies of U.S. Manufacturing," University Research Grants Committee, Northwestern University, 1985-1986.

"Economic Analysis of Multiple-Price Systems: Theory and Application, "National Science Foundation (Regulatory Analysis and Policy Group, SES-8408805), 1984-1985.

"Contracting and Price Adjustment in Product Markets," University Research Grants Committee, Northwestern University, 1983-1984.

PAPERS PRESENTED

University Seminars

Bard College, University of Bergamo, University of California (Berkeley), University of California (Los Angeles), University of California (San Diego), Carleton, University of Chicago, Columbia, University of Dubuque, Emory, University of Florida, University of Central Florida, Florida Atlantic University, George Washington, Georgetown, Harvard, Hendrix College, University of Illinois, Indiana University, Johns Hopkins, Laval, Lehigh, University College (London), University of Kentucky, London School of Economics, MIT, University of Maryland, University of Miami, Miami University, University of Michigan, University of Minnesota, New York University, Northwestern, Oxford, University of Pennsylvania, Princeton, Rice, University of Rochester, Stanford, Syracuse, University of Miami, University of Texas, Texas Tech University, Tufts, University of Virginia, University of Wisconsin (Madison), University of Wisconsin (Milwaukee), Virginia Tech, and Yale.

Conference Papers Presented

American Council for Capital Formation, Washington, DC, June 1994.

American Economic Association, New Orleans, 2008; Chicago 2007; Boston, 2006; Philadelphia, 2005; San Diego, January 2004; Atlanta, January 2002; New Orleans, January 2001; Boston, January 2000; New York, January 1999; New Orleans, January 1997; San Francisco, January 1996; Washington, D.C., January 1995; Boston, January 1994; Anaheim, January 1993; Washington, D.C., December 1990; Atlanta, December 1989; New York, December 1988; Chicago, December 1987; New Orleans, December 1985; Dallas, December 1984.

American Enterprise Institute, Conference on Private Equity, 2007; Conference on Corporate Taxation, 2006; Conference on Multinational Corporations, 2004, 2003; Conference on Multinational Corporations, February 1999; Conference on Income Inequality, January 1999; Conference on Transition Costs of Fundamental Tax Reform, November 1998; Conference Series on Social Insurance Reform, 1997-1998; Conference Series on Fundamental Tax Reform, 1995-1998; Conference on Distributional Analysis of Tax Policies, Washington, D.C., December 1993.

American Finance Association, New Orleans, January 2008; San Diego, January 2004; Boston, January 2000; New York, January 1999; New Orleans, January 1997.

Association of Environmental and Resource Economists, Dallas, December 1984; San Francisco, December 1983.

Association of Public Policy Analysis and Management, New Orleans, October 1984; Philadelphia, October 1983.

Bipartisan Commission on Entitlement and Tax Reform, Washington, DC, June 1994.

Brookings Panel on Economic Activity, September 1994, April 1988, September 1987, September 1986, April 1986, September 1985.

Centre for Economic Policy Research Conference on Capital Taxation and European Integration, London, September 1989.

Conference on International Perspectives on the Macroeconomic and Microeconomic Implications of Financing Constraints, Centre for Economic Policy Research, Bergamo, Italy, October 1994.

Congressional Research Service Conference for New Members of Congress, Williamsburg, January 1999.

Congressional Research Service Conference for Members of the Ways and Means Committee, Baltimore, October 2001.

Deutsche Bundesbank Conference on Investing for the Future, Frankfurt, Germany, May 2000.

Eastern Economic Association, Boston, March 1988; Boston, February 1983.

Econometric Society, New Orleans, January 1997; San Francisco, January 1996; Washington, D.C., January 1995; New Orleans, January 1992; Washington, December 1990; Atlanta, December 1989; New York, December 1988; Chicago, December 1987; New Orleans, December 1986; New York, December 1985; Boston, August 1985; Madrid, September 1984; San Francisco, December 1983; Pisa, August 1983.

Energy Modeling Forum, Stanford University, August 1983; February 1983; August 1982.

European Commission, Conference on Taxation of Financial Instruments, Milan, June 1998.

European Institute for Japanese Studies, Tokyo, September 2002; March 2002.

Federal Reserve Bank of Boston, Annual Economic Conference, North Falmouth, Massachusetts, June 1995.

Federal Reserve Bank of Kansas City Symposium on "Financial Market Volatility – Causes, Consequences, and Policy Responses," Jackson Hole, Wyoming, August 1988; Comment of Rogoff, August 2004.

Federal Reserve Bank of New York, Conference on Consolidation of the Financial Services Industry, New York, March 1998.

Federal Reserve Bank of Philadelphia Conference on Economic Policy, Philadelphia, November 2007; November 2001.

Federal Reserve Bank of St. Louis, Conference on Economic Policy, St. Louis, October 1994.

Harvard Law School U. S.-Japan Symposium, Tokyo, December 2003; Washington, D. C., September 2002; Tokyo, December 2001.

Hoover Institution, Conference on Fundamental Tax Reform, December 1995.

The Institute of Gas Technology, Washington, DC, May 1982.

The Institute of Management Science/Operations Research Society of America, Orlando, November 1983; Chicago, April 1983.

International Association of Energy Economists, Boston, November 1986; Philadelphia, December 1985; Bonn, June 1985; San Francisco, November 1984; Washington, DC, June 1983; Denver, November 1982; Cambridge (England), June 1982; Houston, November 1981.

International Conference on the Life Cycle Model, Paris, June 1986.

International Institute of Public Finance, Innsbruck, August 1984.

International Seminar on Public Economics, Amsterdam, April 1997.

National Academy of Sciences, February 1997.

National Association of Business Economists, Orlando, September 2003; Washington, September 2002; New York, September 2001; Boston, September 1996; Dallas, September 1992; New Orleans, October 1987.

National Bureau of Economic Research - IMEMO Conference on the American Economy, Moscow, August 1989.

National Bureau of Economic Research Summer Institute, August 2006; August 2005; July-August 2003; July-August 2000; July-August 1999; July-August 1998; August 1997; July 1995; July 1994; July 1993; August 1992; July-August 1991; July-August 1990; July-August 1989; July-August 1988; July-August 1987; July-August 1986; July 1985; July 1984; July 1983.

National Bureau of Economic Research Conference on Asymmetric Information, Corporate Finance, and Investment, Cambridge, May 1989.

National Bureau of Economic Research Conference on Chinese Economic Reform, Shanghai, China, July 2000.

National Bureau of Economic Research Conference on Financial Crises, Key Biscayne, March 1990.

National Bureau of Economic Research Conference on Government Expenditure Programs, Cambridge, November 1986.

National Bureau of Economic Research Conference on Indian Economic Reform, Rajasthan, India, December 1999.

National Bureau of Economic Research Conference on Innovation Policy, Washington, DC, April 2004, April 2003.

National Bureau of Economic Research Conference on International Taxation, Washington, DC, April 1994; Cambridge, January 1994; New York, September 1991; Nassau, Bahamas, February 1989.

National Bureau of Economic Research, Macroeconomic Annual Conference, Cambridge, MA, April 2004.

National Bureau of Economic Research Conference on Macroeconomics and Industrial Organization, Cambridge, July 1988; Cambridge, July 1987; Cambridge, July 1986; Chicago, November 1985.

National Bureau of Economic Research Conference on Nonprofit Organizations, Cheeca Lodge, January 2002; Cambridge, October 2001.

National Bureau of Economic Research Conference on Pensions, Baltimore, March 1985; San Diego, April 1984.

National Bureau of Economic Research Conference on Productivity, March 1988; March 1987.

National Bureau of Economic Research Conference on Public Economics, Cambridge, April 1999, April 1994, April 1993, November 1991, April 1991, March 1988, November 1987, March 1987.

National Bureau of Economic Research Conference on Tax Policy and the Economy, Washington, DC, October 2001, November 1998, November 1996, November 1994, November 1991, November 1989.

National Bureau of Economic Research Trans-Atlantic Public Economics Seminar, London, May 2002; Gerzensee, May 2000; Turin, May 1994.

Organization for Economic Cooperation and Development, Economic Policy Committee Meeting, Paris, November 2002, April 2002, November 2001, April 2001.

National Tax Association/Tax Institute of America, Washington, DC, June 2000; Atlanta, October 1999; Arlington, May 1992; Seattle, October 1983.

Organization for Economic Cooperation and Development, Ministerial Meeting, Paris, May 2002, May 2001.

Princeton Center for Economic Policy Conference, October 2000, October 1995.

Sveriges Riksbank/Stockholm School of Economics Conference on Asset Markets and Monetary Policy, Stockholm, Sweden, June 2000.

U.S. House of Representatives, Budget Committee, June 2001.

U.S. House of Representatives, Committee on Ways and Means, Washington, DC, June 2006; June 2005; June 1999; April 1997, June 1996, July 1992.

U.S. Joint Economic Committee, Washington, DC, February 2003, October 2002, October 2001, May 2001.

U. S. Senate Committee on Banking, Housing, and Urban Affairs, Washington, DC, October 2001, May 2001.

U.S. Senate Committee on Budget, February 2003, September 2001.

U. S. Senate Committee on Commerce, Science, and Technology, July 2002.

U.S. Senate Committee on Finance, Washington, DC, February 2003, February 2002, February 1997, January 1995, January 1992, December 1981.

Appendix B

ROBERT GLENN HUBBARD

Testimony as an expert witness 2007 – 2011

Air Products and Chemicals, Inc. v. Airgas, Inc., Peter McCausland, et al., Civil Action No. 5249-CC, Court of Chancery of the State of Delaware. Provided deposition testimony and trial testimony in 2010.

Charles Fisher, et al. v. ABB, Inc., et al., 2:06-CV-04305 (NKL), U.S. District Court, Western District of Missouri. Provided deposition testimony in 2009 and trial testimony in 2010.

United States of America against Ralph Cioffi and Matthew Tannin, 08-CR-415(FB), U.S. District Court, Eastern District of New York. Provided trial testimony in 2009.

Novell, Inc. v. Microsoft Corporation, MDL Docket No. 1332, Civil Action No. JRM-05-1087, United States District Court, District of Maryland. Provided deposition testimony in 2009.

In Re American Mutual Funds Fee Litigation, 2:04-cv-05593-GAF-RNB, U.S. District Court, Central District of California, Western Division. Provided deposition testimony in 2009.

Chemtech Royalty Associates, L.P., by Dow Europe, S.A., as Tax Matters Partner v. United States of America, 06-258-RET-DLD, U.S. District Court, Middle District of Louisiana. Provided deposition testimony in 2009.

Convolve, Inc., and Massachusetts Institute of Technology v. Compaq Computer Corporation and Seagate Technology, LLC, 00-CIV-5141, U.S District Court for the Southern District of New York. Provided deposition testimony in 2008.

Cynthia A. Bennett, et al. v. Fidelity Management & Research Company and FMR Co., Inc., 04-CV-11756-MLW, U.S. District Court, District of Massachusetts. Provided deposition testimony in 2008.

Pro-Sys Consultants Ltd. and Neil Godfrey, Plaintiffs against Microsoft Corporation and Microsoft Canada Co./Microsoft Canada CIE Defendants, No. L043175, Vancouver Registry, Supreme Court of British Columbia. Provided deposition testimony in 2008.

United States of America vs. Frederick S. Schiff and Richard J. Lane, Criminal No. 06-406, U.S. District Court, District of New Jersey. Provided trial testimony in 2008.

Discover Financial Services, et al. v. Visa U.S.A. Inc., et al., 04-CV-7844, U.S. District Court for the Southern District of New York. Provided deposition testimony in 2007.

In re: Oracle Securities Litigation, C01-0988-MJJ, U.S. District Court for the Northern District of California. Provided deposition testimony in 2007.

Susan Strigliabotti, et al. v. Franklin Resources, Inc., et al., C-04-0883, U.S. District Court for the Northern District of California. Provided deposition testimony in 2007.

APPENDIX C

MATERIALS RELIED UPON

Legal Filings

"Complaint," Board of Trustees of the Imperial County Employees' Retirement System vs. JPMorgan Chase Bank, N.A., 1:09-CV-03020-UA, Southern District of New York, March 27, 2009

"First Amended Complaint," Copic Insurance Company v. Wells Fargo, 09-cv-00041-WDM-BNB, District of Colorado, February 20, 2009

"First Amended Complaint," IBEW vs. Bank of New York Mellon, N.A., Civil Action No. 09-cv-06273 (RMB)(AJP), Southern District of New York, February 11, 2010

"Northern Trust Global Securities Lending Presentation (October 2008)," Exhibit 18 to "Plaintiffs' Proposed Findings of Fact and Conclusions of Laws," BP Corporation North America Inc. Savings Plan Investment Oversight Committee et. al. v. Northern Trust Investments N.A. and the Northern Trust Company, 1:08-cv-10533, Northern District of Illinois, December 4, 2008

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Bright, Leslie, et. al, "Lehman Brothers Holdings," Fitch Ratings, April 16, 2008
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